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Wm. Orme Carter, Esq., Machno Slate and Slab Company. All communications must be addressed to the resident director, Mr. T. H. WHEELER, Conway, North Wales.

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CORNISH MINE PHOTOGRAPHS—No. XIII.

"TRURO FAIR."

Shorn of their primitive consequence and utility as are the country fairs in all parts of the kingdom, by the innovations of modern taste, the improvement in public morals, as well as by the rapid increase of towns and villages, with their handsome shops, filled to repletion with goods suited for every requirement, few of these ancient substitutes for such accommodations retain a magnitude and celebrity equal to the coppercrist (*coppus christi*) at Penzance, and that forming the subject of our paper, held on Whit Monday. It is not our intention to write a chapter on the origin, rise, and fall of fairs, or to enter on Oscanian laments for their departed glories, great as they were in our childhood's imaginations, when the dazzle of tinsel kings and bespangled queens, with all their mighty hosts of attendants, in brilliant glazed calico robes, resplendent with pasteboard and glass jewels, surmounted by graceful, but dirty, nodding plumes, mounted on their piebald, highly-trained, but lowly-fed palfreys, with the humble pantaloons and the dear old clown, cracking his still older jokes, afforded us infinite gratification and delight. Happy days, happy days! when mere appearances so pleased us. Yet, if we moralise or reflect, are we not still amused and taken by tinsel and appearances? Are we so very much altered by age? We fear not. Even if we be, boys are and will be boys still; then let them enjoy their heyday, as we have enjoyed ours. The same animus pervades childhood as ever. At all events, "the camels are coming, the camels are coming! hurrah, boys, hurrah!" is still the burden of the cry of the joyous throng of all the children in and about the locality, as the cavalcade of performers, male and female, make their formal state entrance into the town, in their dragon, pagoda, Chinese, or some other outlandish, barbarously designed description of vehicle, with twenty horses, driven by the world-renowned, never to be equalled Mr. Emidy; Ramo Samee the second, or young Powell, perhaps a descendant of the celebrated troopmaster of our boyhood, preceded by the unrivalled band, with noses as red as the second-hand beefsteak's garb in which they are arrayed, and followed by the magnificent stud exhibited in detail.

For a mile or two on the high road crowds of urchins, and children of a larger growth, amid heat and dust, wander out to meet the procession, each youngster fixing his fancy on a favourite horse, in their little hearts literally envying the pale faced, scottish-looking rider his glorious, gaudy, party-coloured trappings and crest—poor children!—each deeming himself too proud to be distinguished as the bride-holder of one or the other of the prancing, spurred-up steeds; the preference is given by all, of course, to the most splendidly clad, confident looking personage. Here let us ponder again, and consider that we differ now but in age.

Then come the group of strolling players, a squalid crew, with all their concomitants, beside the entire scenery, machinery, and decorations for a theatre; there are the wives, the daughters, and sons, the phenomena and Roscils of some future stage, provided the magistrates and spirituous liquors spare their existence; but there they come, ragged, dirty, redolent of hair oil, tobacco smoke, and gin, presenting as motley a group as in the days of Hogarth. After these come the lions, tigers, and animals of all possible and impossible descriptions, the most savage being their keepers and showmen, with their hoarse, husky voices, and filthy, rank smelling, black-guard assistants and drivers, who keep up a running comment of varied swearing and slang, picked up by long practice and experience in the most notorious sinks of iniquity accessible during their peripatetic wanderings. After these, on every road, may be seen the small fry of the profession, including conjurers, giants, dwarfs, learned pigs, and photographic professors; *theatres du petet lazars* and lazier proprietors, swings, up and downs, thimble riggers, blind or pretended blind fiddlers, beggars, and a detachment of Falmouth tag rag and bob-tail, three or four score. This influx continues, with little intermission, from midnight until midday, during which period all hands that can be spared from the attracting procession are busily employed in fighting for and fitting up the most eligible situations on the "High Cross." Having thus, as we presume, properly premised the day, we shall enter on our duties with greater ease, and be enabled to depict the scene with greater lucidity. The dusty roads at early morn are dotted by flocks of sheep and herds of cattle, with their attendants, of far more useful though less pretentious character than those lately passing in review; these wend their way to the Castle Hill, if not purchased on their route by foresters; if so, these poor over-driven beasts have to stand for hours broiling in the sun, and harassed by continual blows from their keepers, until their chattering (haggling) proprietors adjourn to a neighbouring pot-house, to settle their differences over a pint of toddy. The cattle fair is over by 1 o'clock P.M., after which the country maidens (all lassies are maidens in Cornwall), muster in full force at the High Cross—*spectulum venient venient spectentur ut ipsi*. As a natural consequence, the young men are to be found in proportionate numbers; a fine sight, indeed, they afford. Few counties can boast a finer display of honest lads and bonnie lassies, with their smiling, rosy cheeks, and modest demeanour, and brawny, stalwart, handsome youths, than are to be seen at the High Cross on Truro fair day. These form the real *couleur de rose* of Cornwall, without the use of paint; it is natural. We know we shall have the opinion of those who have seen them in our favour, despite critics.

Meantime, the older yeomen, captains and agents of mines, merchants, &c., repair to the different hotel ordinaries, to talk over politics, prices, old acquaintance, and minor matters, and to enjoy themselves, this being a day of general recognition and mutual good humour; the third, fourth, and sometimes—But we and they forget how many glasses extra are indulged in; no matter to them, or to us, so that their horses know the road home. At 2 o'clock P.M. the pleasure (?) fair commences; the *debut of the corps dramatique* on their narrow stage is anxiously awaited by the throng; at length they issue forth, in all the panoply of dingy, threadbare, cast-off wardrobe from some metropolitan suburban theatre, as incongruous a medley as are to be seen at one of Julien's *bat magiques*, though not so numerous. The hero of the Bloody Hand or Tale of Horror, the Demon of the Black Forest or the Remorse of Guilt, or some other horrible affair (the more horrible the title the better the effect), announce in stentorian voice that they will on that occasion present the astounding novelty of one of the above thrilling tragedies, with an interlude of singing and dancing, the whole to conclude with an entirely new pantomime, entitled Lodge Secrets, or Harlequin Jackanapes, and the Freemasons' Grid-iron, showing how easily a fool is made, and all for the sum of one penny. Only think, for one penny! a real tragedy, a song, a dance, and pantomime, and only a penny, the whole executed, too, in 25 minutes! Could Mr. Keen be keen enough to beat this, even with an episode of fools?

After an emphatic eulogy on his brother actors, and modest allusion to his own abilities, by way of commencing business he considerably horse-whips Mr. Clown, who was doing his duty by caricaturing his words and grimaces, which chastisement the latter duly avenges upon Pilgrimage to the infinite glee of the delighted crowd. After many assurances that now is the time to secure good places, a few stragglers, like decoy ducks, gradually enter; some voice in the crowd bawls "give us a dance; let us see what you can do," when Mr. Merryman's services are again called into requisition, he being M. C. of the *ad fresco* drawing-room. Then comes forward a queen, but whether of Henry or Hector the Second can scarcely be distinguished by her garb; to judge from her pallid, wan countenance she must belong to the latter, for, poor creature! she seems to have suffered hectoring enough from some tyrant! Then there is Columbine, not more than sixteen, in pink "tights" and starched muslin—*qui color albus erat, nunc est contrarius albi*—reaching nearly to her knees; poor child! her lot is indeed to be pitied! Then there are Circe, Venus, and many other goddesses of similar character, ranged opposite the Duke Aranz, Hamlet, the Stranger (alike to soap and sentiment), with many other walking gentlemen; the most perfect characters being the villain and Jeremy Diddler, both up to the mark in real as well as mimic life. These join in a dance unknown to any but such professors of the Terpsichorean art. After a display of considerable agility on the part of Harlequin and his partner, the music stops; the hero, with stentorian lungs, orders "All in—all in and begin!" again admonishes the crowd,—now is the time to secure places as the curtain will rise in five minutes, on such a spectacle as was never before presented on the histrionic stage (being probably true).

The audience, now waxing warm with excitement and heat, throng in in numbers, the place is soon filled. As it is fair time, and only a penny! suppose we go in and witness a performance? Well, there is the drop-scene, once well painted, and, if we recollect aright, we once saw it at the Grecian Saloon, but now sadly worn and disfigured. We secure a seat in the boxes. What's in a name? boxes and pit! Oh! ye gallies gods! spare us a little of your jocular, boisterous hilarity and gratuitous showers of orange-peel, whilst we endure this horrid suspense, and still more dreadful din called music, produced by two violins, a clarinet, a drum, and

pandean pipes, the latter worked by a one-eyed black fellow with prodding energy. Complaints are useless; it is fair time, and all jokes pass in fun, fun being the order of the day.

At length the curtain rises on a scene literally as had been promised: there was the hero, surrounded by a most mysterious-looking forest and rocks, who, in "language brief," described the secrets of his prison-house, whence he had just escaped (probably, partially correct), with the most approved nasal utterance and staccato tread. The heroine with the wan countenance (whom by her dress we had mistaken for a queen of some sort), appeared with an equally short history of her life, trials, and present misfortunes, when the villain makes his entrance, and seizes the lady without any ceremony, upon which the hero rushes furiously upon his victim; a terrific combat ensues, both fall; the demon, amid the full radiance of a pot of blue and crimson fire, appears, and walks off with the lot,—an emblem of the consequences of guilt they would do well to recollect. The curtain now falls, amid such shouts of applause as Mr. Punch receives when he leaves his place in Fleet-street by his wooden representative for a "tour of the provinces."

Before the curtain is well up, the comic singer, frequently in a miner's dress, hops on the stage and performs his part. A great favourite is an old song, of which we retain one verse, running:—
"If you were a miner,
He'd be a fair day;
He'd come on a fair day,
And take you to the show."

This exquisite morsel of lyric poetry being executed with suitable grimace, is certain to call down an encore, which time will barely afford; still, it must be complied with, the public enforcing their rights to double the promised quota here as well as in more polite assemblies. The dance, a *pas seul*, also secures an encore; when the "Lodge Secrets" commences, and elicits roars of laughter, heard outside the walls (canvas walls), for by this time the hero is on the outside stage shouting, "Hear them! hear them! Only hear their approval of the performances!" which appeal and confirmation secures a rapid refilling by the visitors, now all anxious to get good places, of which they have as much chance as herings in filling a barrel.

Genii of the stage! shade of Grimaldi! or thou, O Momus! grant us but power to describe the pantomime. We think we hear you say, "We are not Freemasons, go to them." Therefore, we appeal to you, oh! ye brotherhood! But no, we should be letting the cat out of the bag, and spoil the poor players and masonic farce at the same time. We will not do it; let all pay for knowing; experience taught is better than experience taught. Suffice it to say, the whole assemblage laughed till their sides ached, and tears ran out of their eyes; we confess to the soft impeachment, we could not resist, so truly excellent was the burlesque. The whole performance extended to full five-and-twenty minutes, long enough, in truth; the comic singer returned thanks in brief terms, assuring us of the manager's thanks. We were soon out of the house, and in five minutes after we heard the bell tinkle for commencing *de novo*: on looking at our watch we found we had been detained just thirty-five minutes by our curiosity. To see all its phases, we took a stroll round the fair, and found the whole of the professionals in full activity; the noise, clamour, and rivalry, worthy a Greenwich or a Bartholomew exhibition in their palmy days. We visited the resorts of the labouring class and the miners; these we found in the public-houses, enjoying themselves with their wives and sweethearts to their hearts content; rum, shrub, and ginger-beer, being substituted for the once favourite but now almost obsolete "gin and treacle," and hot "beer and sugar made sweet and fulsome" (formerly the miners' *beau ideal* of liqueurs). Some parties we found singing songs, but more of them singing hymns,—an extraordinary taste certainly, but literally true. As a matter of course, some, like their superiors on such occasions, got "fou," and as when the liquor is in the wit is out, a jolly row or two took place, a fair stand up fight, an interference, a reconciliation and shake by the hand ensued. These were the worst—indeed, the only bad features in this celebrated miners' fair; a contrast, indeed, from thirty years since.

There, too, were the mountebank doctors and vendors of pills, immortalised by Richards in his *Cornish Dialogue*, where they are described as—

"One for curing sore lips and sore eyes,
And one for giving (if) all sorts of diseases.
It cured Jenny's leg when 'twas rankled and swelled,
And the back of the moyle when 'twas terribly galled."

These once famous remedies are, however, fast falling into disuse. The revelry is continued until about eleven o'clock, after which the leading players and showpeople retire, "God save the Queen" preceding the last performance, the audience consisting of only a few townspeople, the country population going on their route at a much earlier hour; as the clock strikes twelve the people's day is over for another year.

We have portrayed the good and bad of this rustic festival as they exist: we know many strict moralists urge the entire suppression of such affairs; for our part, where they are confined to such hours and scenes as we have depicted, we should be sorry to see them discontinued. "All work and no play makes Jack a dull boy;" and if a few overstep the bounds of discretion, they form the exception, not the rule; the innocent enjoyments of the whole for once a year should not be blamed or jeopardised. We confess the experience of the day, with its lithe jollity of the youthful, the hearty congratulations of the elders, and the delighted exuberant glee of the children, determined us to recommend our friends, and to ourselves revisit, as often as opportunities offered, the gaieties, frivolities, and amenities, of Truro Fair. GEORGE HENWOOD.

ALLEGED INFRINGEMENT OF JOINT-STOCK COMPANIES ACT.—At Guildhall, on Wednesday, the National Savings' Bank Association were charged with having neglected to forward the list of names, and summary of the capital and shares of the said association, to the Registrar, within the time limited by the Joint-Stock Companies Act, by which the company had incurred a penalty of £1, for every day such default continued. It appears that the plaintiff obtained a verdict against the company for 200s. The company had given notice that they should move for a new trial, and an application was pending, in the mean time, that the company should give security for the payment of the amount. There was a meeting held on July 16, but it was argued for the company that that was not "the ordinary general meeting" referred to in the Act, so that it was not required that the documents should be filed. Although, from there being an insufficient number to form the meeting, no meeting was held, Mr. Brady, the solicitor to the company, in his evidence said he was present at a meeting of some shareholders of the National Savings' Bank Association in July last, as their solicitor. Several of the directors were also present. There was no official meeting. No report was laid before that meeting; but he believed a report was issued individually to the shareholders. The meeting took place on July 16, and was adjourned to the 17th, when there were not enough present to form a quorum. He did not count how many there were, but there were nearly fifty persons. The number present was not sufficient to transact the ordinary business of the association. Alderman Hale said the evidence before him went to show that the ordinary general meeting of this association had not yet been held, and the offence charged of neglecting to register within fourteen days after such meeting could not be sustained. The summons was, therefore, dismissed.

IMPORTANT DISCOVERIES IN TRINIDAD.—A rich bed of coal has been discovered at Trinidad, and beds of pure sulphur and good asphaltum have also been found. Asphaltum, petroleum, gypsum, good lime, some compact sandstones, and brick clays were already known and worked, and it is said a little gold has been got in the northern streams. There is no longer a doubt (only an uncertain success attended the attempts of the adventurers who hastened from the neighbouring settlements to the same locality four years ago) that there are rich and extensive deposits of the precious ore on some of the branches of the Cayana. A considerable quantity in dust and grains has been brought to Angostura (now called Bolivar) by the few who went to the place before the rains set in, and in September, when they decrease, a rather considerable number of individuals is expected to resort to it from the settled parts of Venezuela, British Guyana, Trinidad, and other parts. An American firm has recently established itself at the famous Pitch Lake, and erected works, now nearly completed (they make the crude oil already), for the extraction and refining of oil from the asphaltum, the supply of which is no doubt practically inexhaustible. We regard to the coal, there are seams of 18 ft. 30 odd feet, 40 odd feet, and so on, one measuring horizontally the enormous width of 132 ft.—a veritable quarry.

INSTANTANEOUS COMMUNICATION WITH INDIA.—The vast importance of telegraphic communication with India has never been questioned, and the present state of affairs in that country render it doubly necessary that no time should be lost in opening up the line. With a view to assist in the completion of the telegraphic system between England and India, the Red Sea Telegraphic Company has been projected, and, from the high standing in the commercial world of the gentlemen who have undertaken the direction, there is good reason to anticipate a successful issue. The first step to be taken by the company is the laying of a telegraphic cable down the Red Sea from Suez to Aden, and this may be completed in a few months, simultaneously with the Mediterranean telegraph to Alexandria. By this means, direct communication with all India will be brought within a week, and the extension to Karachi, which will immediately follow, hourly communication will be established. The East India Company have consented to guarantee a minimum annual revenue of 20,000l. on the first section to Aden, from the date of the first message being received; and have promised the company every necessary assistance and support. This arrangement only awaits the Government confirmation, without which the company will not proceed. It is proposed, as soon as the capital is subscribed, to purchase the Atlantic cable, or provide a new one, as may be deemed most desirable. The cable will be laid in sections of from 300 to 500 miles, and the necessary arrangements have been made with responsible contractors to undertake the risk of laying it, and with the Turkish and Egyptian Governments for the conveyance. The shareholders will have the advantage of limited liability, which, coupled with the guarantee from the East India Company, reduces the risk to the minimum point, whilst the prospects of large and continued returns upon the capital embarked are very encouraging.

Original Correspondence.

ARE MINING AUDITS SHAMS?

SIR.—Your Journal, a recognised organ of mining interests, has heretofore paid a flattering compliment to the intelligible form and comprehensive scope of one of my balance-sheets for a mining company. You have, moreover, paid me the still more expressive compliment of inviting me to develop, in a series of papers for your columns, the principles of efficient and independent audit in mining accounts. A want of leisure has alone prevented my so doing hitherto; but, waiting opportunity for so formal and laborious a treatment of the subject, I now ask leave to contribute the history of a recent and special experience in my profession, which is expressly that of auditor, with the trained accountship needful thereto, as contradistinguished from the dilettante school of auditors, who need the tutelage of the very officials whom they supervise.

The Tincroft mining audit having fallen into arrear, and otherwise needing the assistance of a professional auditor, I was called in. It proved necessary altogether to recast the materials, a work of no common labour, which in due course was accomplished, and I framed a balance-sheet, an original and peculiar one, very different in character to what had previously passed. I organised the accounts so as to produce results in the appropriate shape, and I attested the balance-sheets so framed for the whole operations of 1856. The looseness of system which had prevailed, as shown in my several formal reports to the board, afforded all sorts of facilities for errors, misconstructions, or even frauds, had the officers of the company not been beyond temptation. It was aptly observed by the *Times*, upon a letter of mine on "Routine Audits," in its columns (City article) of Dec. 5 last—

These companies which have not yet met with any malpractices on the part of their officials, will probably think this exemption to afford sufficient proof of the soundness of their arrangements; but the more rational inference would be that every clerk is not a Robson or a Redpath, and that they owe their immunity chiefly to that fact. Audits, as they have hitherto been conducted, have had little other effect than that of rendering frauds more easy, by beguiling a delusive confidence.

In the Tincroft Company I battled for and obtained several improvements in the financial administration, so that—

1. In a separate form were exhibited the whole realised products of the mining operations periodically, and, *per contra*, the total charges incurred in respect of those products specifically and in reasonable detail, the overplus being carried in one line to a profit and loss account.

2. The general profit and loss account exhibited, first the excess of assets over liabilities, as brought down from the preceding balance-sheet; then the additional profits of later workings; and, *per contra*, the amount of dividends declared, showing, by way of balance, the resultant excess of assets over liabilities, to be carried forward to the next forthcoming account.

3. Appended thereto (all on a single sheet) followed a table of assets and liabilities in detail, proving the other preceding accounts, and, *constrast*, in parallel columns, the like items as brought down and as carried forward—a form likely to show any diversity of a significant character from time to time.

4. Among other schedules by which the balance-sheet was accompanied, for reference if desired, was one of unclaimed dividends, and I had at last succeeded in obtaining a resolution for periodical stock-taking and valuation of stores, effective assets, the fluctuations of which must be taken account of, as well as those of the banking balance.

5. Another great change was to substitute for a loose mode of passing accounts and signing cheques at any time or place, a form of schedules peculiar to my continuous audits, but adapted to the special circumstances. In these are duly marshalled all claims upon the company proposed for payment under predetermined categories of expenditure, and charged against the period to which they pertain respectively—the directors themselves becoming necessarily cognisant of and parties to the analysis of their expenditure, which thus becomes audited, so to say, before payment. Such schedules serve for a continuous audit, and an independent check upon the book-keeping.

This might be considered fair progress for the first year, and one of my first steps in the second one was to frame schedules for the regulation of dividend warrants, and the prevention of their misuse—a possibility which the very respectable gentleman who happens now to be secretary has frankly admitted.

This, however, broke down; for when I had got thus far, it was whispered—but not even yet communicated to me formally or courteously—that the directors would prefer to nominate somebody else to audit the balance-sheets, one likely to take, as well as to give, less trouble. It can scarcely be that I have been thus unceremoniously superseded because I charged thirty guineas for all the labour and responsibility above recited, seeing that the new balance-sheet exhibits some ten times that amount as the annual fees of the board, besides a liberal extra gratuity to the manager, and that the dividend (probably better earned than the accounts are framed to show) is 1500*l.* for the four months alone.

I am conscious that my mode of auditing is "unusual," that persons are sometimes called into mining offices to sign accounts already cut and dried especially for publication—persons of any occupation, to whom any fee is acceptable, and whose utmost effort is to tick off such ledger entries and vouchers, assisted or directed by the secretary, as shall be presented for the purpose.

I desire to cast no reflections upon the gentleman, a stranger to me, whom the Tincroft board has nominated to supersede me, and whom I need not, therefore, designate. I learn that he is to do the work cheaply—at so much per audit; that he is now an *employee* in a sharebroker's office; and that he has had experience in preparing mining accounts, as manager to a certain mining agency office of rather unpleasant notoriety. It is, however, rather amusing to note that although the form of balance-sheet, presented at the meeting of the company to-day, had been severely copied from mine, yet the fitness of my successor to wield my instruments may be inferred from the *expose* which ensued, and from the significant and unprecedented fact that the accounts were put to the meeting from the chair, and passed eventually, "errors and omissions excepted."

Now, to what purpose is all this? The Tincroft directors are men of high-standing, of banking, mercantile, and commercial experience; and I do not, for a moment, pretend there is occasion or disposition on the part of any to mystify either the shareholders or the public. The secretary, too, is an able, straightforward man; and even the manager shall stand free of any imputation from me, notwithstanding his brusque attacks on my meddlesome self, and his sturdy fight for his own *protege*. This manager was *niff* enough to claim credit for recovering, for the Tincroft Company, two several payments of income-tax, by proving that the dividends on which they were charged had not been earned, but paid out of capital! Of course this had been the trickery of preceding management. I hope the rumour is not justified, that the very person preferred for future audit of Tincroft accounts, and who in that capacity attests the recovery of income-tax overpaid, is the veritable Simon Pure who was "manager" in the office wherein were cooked the former accounts, which made payable this recovered tax on a supposititious profit!

But where were the shareholders on the occasion of this meeting? The room was comparatively empty, and the whole formality was an empty farce. On the directors' side it was known that, so long as a foreknowledge of "the forthcoming dividend" could be allowed to ooze out, the shareholders would be grateful, and stay away. And shareholders, even when startled by accidental discovery of the removal of the auditor whose praises had been rung so loudly from the chair on former occasions, were only anxious to learn whether I had discovered something wrong, so as to get an opportunity to "put their shares on the market" before it could be disclosed.

Can we wonder, then, when upright, competent, and experienced mining administrations thus play the game of less scrupulous bodies, and promote sham audits, that your columns should so often lament the undue depression in market values of dividend-paying mines, and that Mr. Bankruptcy-Commissioner FOMBLANQUE should have this week declared, *ex cathedra*, that the surest road to ruin is either theatrical speculation or mining adventure?—*Warnford-court, Sept. 3.*

J. A. FRANKLIN,
Professional Auditor.

THE IRON TRADE—MR. CORT'S CLAIMS.

SIR.—Impartiality and a sense of justice will, I am certain, ensure the same publicity for the accompanying letter, just addressed by me to Mr. Cort, in answer to his letter to you in last Saturday's Journal, as far as concerns myself, and I trust to your inserting it in your next impression.—*Sept. 1.*

MR. RICHARD CORT.—I have just seen your letter in the *Mining Journal* of Saturday last, in which you distinctly state that I have been canvassing and receiving subscriptions on account of the "Cort Testimonial Fund." I have to give that statement as unqualified denial. I have never, in London or elsewhere, canvassed or waited upon any person for subscriptions, nor received any; nor have I ever been "delegated," or represented myself to be "delegated," by my father to canvass or receive subscriptions. I have never represented myself to be the owner of any other name or names than those signed hereto; and I have never been in any of the cities

or towns named by you in your letter—such as Glasgow, Manchester, Birmingham, Liverpool, &c.—in my life. As your statements are calculated to do me immense injury, I caution you against their repetition, and must take steps to vindicate myself, as I defy you to prove your unjustifiable assertions respecting myself. ROBERT WALLACE MARKS.
45, Cranen-street, Sept. 1.

MINING SCHOOLS.

SIR.—Education—that is, the development of God's best gift to man, in its manifold phases, both physical and moral—is the all absorbing topic of the day. Enlightened minds, of every shade of political and religious sentiment, are anxiously investigating the important problem,—How can the torrent of moral delinquency, which now flows down the streets of our cities, be checked in its impetu, and diverted in its course, so as not to overthrow and contaminate the innocent youth of our large towns? Scarcely there are amongst who sincerely believe that the only solution to the above problem is to be found in the cultivation of secular knowledge, growing on the stem of the Holy Scriptures. To this view of the subject I have nothing whatever to oppose, but simply to express my hope that the collier may not be considered an isolated exception to such a salutary and renovating change.

Educational measures have been strongly advocated in the pages of this Journal as a means of diminishing the number of fatal accidents in coal mines, by an intimate acquaintance with the properties of mixed explosive gases, ventilation, and the laws which regulate the actions of material bodies; and hence the use and abuse of mining schools have frequently been the theme of animating and exciting discussion. Many letters have been written by good-meaning men, showing the effectiveness of mining schools as a remedy against the perpetration of hereditary incompetency in mining knowledge; and, on the other hand, others have written with the best intentions, showing their absolute negativities to commute with advantage the scholastic into practical science.

There cannot, however, be the slightest objection against the establishment and support of legitimate mining schools, the primary object of which being to teach the mixed and pure sciences, with their applications, to those practically engaged in the mines. It is in the pursuit of this object that the greatest, and I may add the only, public advantage will be derived; and not in the hopeless chase of the *ignis fatuus* attempting to teach that in mining schools which can only be learnt successfully in personally combating with the difficulties to be learnt in the mine. When the aim of a mining school is to spread the blessings which a good education never fails to command amongst the miners' sons, who may possess the natural abilities to control and direct, then such a school shall have my heartiest wishes for its permanent success. The school at Bristol appears to me, from reading the reports and lectures, to be of this class, and I trust the miners' sons will continue to avail themselves of its advantages, and show their appreciation, by their conduct and acquirements, of the efforts which are being made by generous and liberal minded men and teachers, who may be daily engaged in the arduous duty of imparting knowledge to the youthful student. But when the proclaimed object of a school is to make youths proficient in the mathematical abstractions and the subtleties of the differential and integral calculus, chemistry, geology, mineralogy, mine surveying, mining engineering, how to manage work and men with propriety, and, finally, to prepare them as schoolmasters and public instructors, in the short space of three years, then I conceive that a far less gifted mind than Bacon's will have but little difficulty in comprehending the reason why the keen-eyed practicals of Cornwall keep aloof from the rich advantages placed at their disposal. What, in the name of common sense, can be the meaning of that pathetic voice from Redruth? The public are given to understand that Mr. Uren, a practical miner, has displayed at the Mining School at Truro uncommon mental energy, and a singular aptitude for mathematical researches and physical applications to mining, &c.; and, in consequence of which, he is recommended to be a proper person for a schoolmaster. Here, then, is a case, in which, inexplicable anomaly; the ore has been, and still is, that mining officials are limited in their mathematical and scientific acquirements, even to the prejudice of the workmen's safety; a miner has the ability and perseverance to acquire these essential qualifications, and he forthwith is advised to follow the pursuit, not of a miner, but the lucrative profession of a schoolmaster. Will the public maintain a costly establishment in the abortive attempt to teach schoolboys to be miners, and miners to be schoolmasters? This appears to be the fairest way of putting the question, and I have no fear as to the wisdom of the response by the practicals in the far-off West. It may be urged, with some show of reason, that Mr. Uren, coming from the ranks of the workmen, and understanding their habits and prejudices, is a fit individual to aid in the development of education amongst the class of which he is an illustrious example of the many bright gems that lie unpolished and uncared for in the humble walks of life. Looking at the recommendation in this light, there does appear to be a public advantage in it; but would not, I ask, the cause of education be better promoted amongst the miners by the example and advocacy of Mr. Uren in the official capacity of captain or purser, than it would be by making him a lecturer and schoolmaster? Is it not confessedly acknowledged how few there are amongst the present staff of mining officials who care to possess a scientific acquaintance with the mechanical arts, who can appreciate its advantages, or take any interest in promoting their study amongst the miners? Then why remove Mr. Uren from a line which he has followed from childhood, and the interest of which is likely to be progressively improved by his acquirements and mathematical abilities? I have not the pleasure of knowing Mr. Uren personally, but there can be no harm in my hinting to him that teachers and examiners frequently, from the best of motives, will elevate the abilities of their favourite students by the standard which prevails amongst the extent of their liability.

Now, your correspondent appears to have fallen into two errors—1, in assuming that the Cost-book System offers security to the shareholders against unlimited liability; and 2, in inferring that the Acts in question offer unusual facilities for that class of persons who reflect so much discredit upon the commercial world to play upon the credulity of the public with impunity. I do not deny that the working of the Cost-book System, in its integrity, is excellent, and that, from the advantageous system adopted for obtaining the contributions of the shareholders, it gives small capitalists an opportunity of developing a property in the efficient manner, and at the same time confining the proprietary to the smallest possible number; but the Joint-Stock Companies Act is so framed as to embody all the advantages of the Cost-book System, without its evils. A cost-book company beyond the limits of the Statutes is not now impracticable, except in name, since there is nothing to prevent the bi-monthly audit of accounts, the division of the costs or payment of dividends at each meeting, the confining of the expenditure to meet the wishes of the shareholders—indeed, there is nothing to prevent any existing company registering the very rules by which they are now guided, provided the shareholders agree upon the insertion of a rule which shall make their shares of fixed amount, and thus give them a nominal capital to work upon. The shareholders need not even have their liability limited, the Act giving them full power to subject themselves to the uncertainty of being at any time called upon to pay the whole debts of the company; but then the Joint-Stock Companies Act offers every advantage which the Cost-book System possesses—that of compelling the co-shareholders to contribute *pro rata* to reimburse the partner who has been thus called upon for more than his fair proportion. Take the Vale of Torry Mine as an example. This consists of 20,000 shares, upon each of which 12*s.* 6*d.* has been paid. All that is necessary to render it fit for registration is to pass a resolution, fixing the shares at 1*l.*, and ordering some principal officer of the company to register it under the Joint Stock Companies Act. It is, however, in all cases advisable that the shareholders should know the extent of their liability; and it is, therefore, advisable that a few further amendments should be made, so as to enable the directors to register as a limited company. I trust this will convince your correspondent and all connected with mining companies that the greatest benefit will be secured to mining and mine adventures by the expedient measures being taken to limit the liability of all, and to place men, honesty and ability in every office of responsibility, instead of choosing persons for their influence in share transactions.

Your correspondent refers to Tapping's "Exposition," and very justly commends it to your readers; but, from his communication, it would appear that he has a very small acquaintance with its contents himself. A MINER ADVENTURER.
Aug. 31.

MINING IN FLINTSHIRE.

SIR.—The true character of Flintshire mining would appear to be so imperfectly understood that, in order to a just appreciation of its capabilities, a minute history would be rendered necessary, which would require more space than could be afforded in your valuable Journal. It may, however, be interesting to many of your readers to have some little explanation of the present mining pursuits of Flintshire, compared with those of former times.

Up to within a very recent period the operations were carried on by private gentlemen resident in the district, and so successfully, that not one mine, fairly and vigorously prosecuted, can be pointed out in the whole length of the district but what has given immense profits. This may be considered by those unacquainted an incautious assertion, but may be readily understood by a careful survey, commencing from Talargoch Mine, and running in a southerly direction as far as the Miners Mines. The results in most of the great worked mines have been almost incredibly large returns and profits, ranging over a long period; instance Talargoch, Trelogan, Holway, Milwr, Maeslyn, Halkin, Mold, Hendre Wood, Maes-y-safn, Westminster, and Miners Mines, some of them having returned each upwards of 400 tons of lead ore per month for years. Several other rich mines are omitted, but must be acknowledged most of the old celebrated Flintshire mines have sunk to rise no more, and, indeed, any attempt to resuscitate them could be attended, in many instances, but by evident failure. I would, however, make a few remarks upon a few of the most important, and the latest class of mines which are to be found in the future history of this district, and substantiate its celebrity to those who have not until late years vouchsafed an attempt to reveal its still hidden treasures.

Commencing from the North, I would first call attention to TALARGOCH MINE, in the short formation, which has of late already given substantial evidences of its productiveness, and it is to be hoped its rising prosperity, being comparatively but slightly worked for the extent of lands in lease to the company.

The next mines to the south worthy of particular attention would, I conceive, be those to the north of the Holway old mine (worked by the Holway Company); and also those including Merthyr range, where, to the eastern part of the measures, a most valuable discovery has recently been made, and from the circumstance of the country being entire for a great extent, we may reasonably expect great and speedy results accruing from operations on this part. About half a mile to the south are the BARNFORD HALL MINES, comprising a tract of country in which, perhaps, the main lodes, discovered but unwrought, are more abundant than are generally to be met with, and being thus in an entire state of infancy, it is not unreasonable to calculate on these mines speedy becoming great and lasting, both in the limestones and chert formation; and, from the extent of their bed, and the nature of the lodes, it is probable the lodes from 20 fms. deep, a great proportion of profits may be anticipated from the forthcoming returns. These mines, in which so slight an amount of work has been done (containing upwards of 300 acres of virgin ground), were commenced about 2½ years ago, and attended with immediate success. The outlay may, therefore, be thrown entirely out of the balance; and, besides a sum returned in dividends, a large amount has been laid out in preparations for extended operations. The result, for so short a period, is seldom surpassed or equalled in any mining adventure, and must augur well for their rising prosperity, the present necessary outlay for the purpose of prosecuting the discoveries to the fullest advantage being made from the resources of the mines.

The next new operations southward are on a fine tribe of veins on the chert formation, parallel to the well-known Howard veins (to the south of Mold Mine), also operations in the limestone. This set promises an extensive field for mining enterprise, containing upwards of 300 acres in the choicest part of the district, as proved by past results in workings to the north and immediately contiguous. The next spirited little trial, and one which creates considerable expectations in the neighbourhood is the PARRIS CRYSTAL MINE. This is in a new place of the untried mineral country, and adjoining the formerly celebrated Maeslyn Mine, and has hitherto been mixed up in so many small patches of land as to have prevented a united grant, until recently, being obtained. The measures in this locality, from the old Mold Mine south, appear to be pre-eminently conducive to great mineral deposits in the chert, and the proprietors look forward with confident hopes of success, having many desirable features and advantages appertaining to the set.

The HALKIN MINES, or DEER LAVAL, still further to the south, have now their edit level unwatering their principal workings, and are likely to pour into the market abundant resources for many years. Indeed, this mine should rather be regarded as an old standard. The great advantages derivable from their edit has induced me to point to this desirable feature.

Commencing now on the Mold Mountain, I would draw attention to the PARRIS MINE, now in a condition to call forth particular attention. One cannot, in the first place, but observe that this mine has been commenced in a spirited and miner-like manner, and from the known features which it presents, it can scarcely fail to contribute its full portion as a first-class mine, and it is to be hoped the depositors of capital so judiciously laid out will be amply and speedily rewarded. The last mine that I shall at present allude to is the WARRILAS, about half a mile to the south of the great Maes-y-safn Mine, on a parallel master vein, in which recent favourable indications forestal equal results with any of its celebrated predecessors. The most important feature is the completion of a deep edit from the River Alan, 900 fms. long, up to the bearing measures, which is now being driven on the course of the vein, with fine stones of ore at present in the forefront. This mine is in a district in which once a discovery be made invariably proves continuous and lasting, and is generally expensive, from being heavily watered, hence the high value to be set upon it.

With an unimpaired spirit of enterprise, it is to be hoped that Flintshire mining will become flourishing, and will hand over to future generations its just share of merited renown. WILLIAM FRANCIS.

THE SEWERAGE OF LONDON.

SIR.—If the art of making underground tunnels were now completely in its infancy, one could imagine an engineer, for want of a better, improving a plan for making an open drain for carrying a volume of nauseating and poisonous liquid matter slowly along the residence of the thickest hive of human creatures congregated together on the face of the earth. But when we know that tunnelling for this purpose has been effectively in use for the last 25 centuries, and that, in addition to the resources of that period, in the present day we have steam-engines capable of lifting any amount of substance to any given height, the proposal for open sewerage wears a still stranger aspect. It is not surprising that your correspondent, "Mining Engineer," propounds a question to your mining friends as to the merits of such a plan. What is most strange is that there is any occasion to propose such a question. Neither does it appear to me to be subject foreign to the object of your Journal, although I am aware that amongst a certain class of would-be-clever people it is supposed that mining engineers are totally unqualified to give an opinion upon such a grave, momentous, and difficult subject.

Your correspondent states that it is a part of the proposed plan to carry two loathsome open channels, together forming a width of 76 ft., along either one side of the Thames for a distance of 20 miles; these filthy ducts to be 16 ft. deep, and to move with a fall of only 6 inches in a mile. Now, this is the most extraordinary thing—the slow rate of speed chosen; and one would think that the people of London were loath to part with this fetid volume, or that it had some peculiar charm about it; besides which, to impart it at this slow rate it will take twice as much water as would be required to drive it in a smaller tunnel with a greater descent—namely, 175 million gallons of water per diem. Now, unless it is wished to poison every body in the neighbourhood of London and the banks of the Thames, why should this plan be carried into execution? It looks to me more like some stratagem of invention, devised against an invasion than anything otherwise intended for the benefit of the City of London; and I am satisfied that an enemy would never have the hardihood to endeavour to advance in the face of these nephilim columns emanating from those flowing cesspools. The convexity of water at the surface of the earth is 2 in. in a mile—that is a chord line of a mile, drawn to meet the ends of an arch of the earth's circumference, would have a versed sine of 2 in., calculating the globe at 7920 miles instead of 7970; the difference is so trifling as to be inappreciable—say, 1-160th part of an inch. It is, therefore, child to say that a fall of 6 in. affords but very little run for an aqueduct. Every child knows intuitively that the greater the angle or declivity over which water falls the greater the velocity, and consequently the greater the quantity discharged in the same time. What reason can there be, then, for not making a tunnel underground of sufficient capacity and fall to carry this obnoxious matter to some innocuous point on the sea coast, with the greatest speed practicable, consistent with good engineering we give to our water-courses, which answer the purpose for which they are intended—bringing water to water-wheels a fall of 1 in. in 10 fms.—i. e., 1 in 720, or 7 ft. 4 in. in a mile? This, at the end of a tunnel of 20 miles, would create a lift of 146 ft. 3 in. A tunnel of 15 ft. diameter, with this fall, will deliver in a day, at the lowest calculation, 246 millions of gallons of water; but 50 millions would be sufficient for all purposes. The making such a tunnel would be nothing difficult or unusual; it is nothing but a large adit or level; we occasionally make as much as 50 miles of them in a single mine, and much of them from 1200 to 1500 ft. under the surface or level of the sea. Certainly a thing so easy as making a tunnel 12 ft. diameter, 20 miles long, and 20 to 30 fms. under the surface is not sufficient to baffle the engineering ability of this country. Again, about the steam-engines, a good large condensing-engine will lift a column equal to the diameter of its cylinder 20 miles high in a day; and four such engines as were made by Messrs. Harvey and Co., at Hayle, to drain the Humber Lake, would lift 52,114,560 gallons of water, 150 ft. high, in a day; or 30 gallons to every inhabitant of London. Wheels made of hollow work, with inverted buckets, might be used to free the liquid from the solid matter at the bottom of the outlet shaft, and to load wagons to bring what was required to the surface. In fact, this is a plain matter of engineering, and if submitted to such a man as Brunell he would dispose of it instantly.

To carry out the proposed plan, as described by "Mining Engineer," it would create a loathsome lake of filth, not stagnant, but stirring and moveable, equal to an area of 184 acres 16 ft. deep, and certainly it would be one of the grandest things ever done in this or any other country since the world was created. It could be called the Feculent Lake. I cannot believe that this can be a serious proposition; I cannot imagine that 2400 years after the Tarquins had embellished Rome with aqueducts, and cleaned and ventilated it by means of their cloacae, that the devoted citizens of London are to pay six millions sterling to be inundated with filth and malaria. The Thames is sufficiently bad already, but to have the quinquessence of this polluted stream preserved in canals by its side is a refinement that certainly could never have been anticipated; and, for the sake of the health of the metropolis, it is to be sincerely hoped that such a shocking scheme will never be undertaken in our days. Sept. 1. MATTHEW FRANCIS.

THE JOINT-STOCK COMPANIES ACT v. THE COST-BOOK SYSTEM.

SIR.—In your last Journal, a correspondent, referring to the proceedings of the directors of the Royal Surrey Gardens Company, alluded to the Joint-Stock Companies Acts, 1856-7, in a somewhat ambiguous manner; and from his remarks many would infer that the Acts were not of any considerable advantage to mining companies, from the fact of the Cost-book System giving ample opportunity to the shareholders to limit the extent of their liability.

Now, your correspondent appears to have fallen into two errors—1, in assuming that the Cost-book System offers security to the shareholders against unlimited liability; and 2, in inferring that the Acts in question offer unusual facilities for that class of persons who reflect so much discredit upon the commercial world to play upon the credulity of the public with impunity. I do not deny that the working of the Cost-book System, in its integrity, is excellent, and that, from the advantageous system adopted for obtaining the contributions of the shareholders, it gives small capitalists an opportunity of developing a property in the efficient manner, and at the same time confining the proprietary to the smallest possible number; but the Joint-Stock Companies Act is so framed as to embody all the advantages of the Cost-book System, without its evils.

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Aug. 31.

THE FALLACIES OF ADVERTISERS.

SIR.—For a long time past I have been in the habit of glancing over the advertisements of your numerous advertisers, and smiling at the varied "puffs" which they contained; but little did I think that such glaring baits would have the effect of luring the most credulous to the snare. I have turned over some of your volumes for ten or more years since, and recognise but few of those with whom I then dealt, which induced me to make enquiries respecting the rise, antecedents, and progress of this new generation of mining sharebrokers; and I have no doubt, Mr. Editor, if you have been made acquainted with similar information to that given me, you have smiled at the preposterous and gifted talent which must be possessed by those who publicly propagate their condescension, practical ability, and astounding sentences in mines and value of mining property. The collective and individual wisdom of this juvenile race must be of infinite advantage in guiding buyers of such shares that may be recommended by them. But it is astonishing to me that their kindness and self-sacrifice should so predominate as to lead others to wealth and not partake of a portion for themselves. Still I am not surprised to find, when persons wholly unacquainted with those they venture to correspond with, and place their capital in hands so ill qualified to lay it out to any advantage, that, as soon as their eyes are opened to the deception practised, the mining mine is as ruinous, and all associated with it as swindlers, without considering that they are as culpable themselves (for want of common caution), as those who deceived them by false representations.

The system adopted for some three or more years since of advertising the sale or purchase of shares at fixed prices has a false and injurious tendency; for it must be plain to the commonest understanding that the shares offered for sale would only be delivered in the event of a positive decline; nor would they purchase unless there was a rise or demand for the stock at the minimum price quoted. I need not name any of the numerous instances which have come before me or the public generally, who may have been as unwise as to think that they were going to purchase or sell shares at 10 or 15 per cent. below or above the regular market prices, for the answer they would receive will be, in case of purchase, the shares are sold, or withdrawn, or the seller must be consulted. The Mining Exchange was to have been a model of purity; and a rule of the society precluded any member from advertising fixed quotations; but that covenant has been departed from, and nearly all follow the pernicious and deceptive system. To illustrate some of the above remarks, I allow me to refer you to an advertisement, some few weeks since, introduced through your columns, for the sale of 400 shares or any part thereof, at 10*s.* per share, in a copper and silver-lead mine in Cornwall. It is surrounded by the richest dividend-paying mines in the district, and adjoins the celebrated South Caradon Mine, &c. The rich copper lodes of this mine run through the entire length of the mine; and I have no hesitation in saying that in a year or so it will pay dividends, and the shares worth many pounds per share.

Now, Sir, this hypothetical and false representation has had the effect of drawing purchasers, who, no doubt, will soon find out that, even if they have a lease, not a stick of machinery was ever erected, that no shaft or levels are being worked, no copper or silver-lead has been raised, or that the majority of shareholders are in a position to pay the smallest all, of necessity required; and I venture to assert that the agents of West Caradon, East Caradon, Marke Valley, Phoenix, or Tokbury Mines, which surround the celebrated South Caradon referred to, will not concur in the opinion so prominently recorded.

You cannot judge my astonishment, as well as that of many others, at the portentous egotism, the contemptible ignorance of the youths advertising that "he will inspect any mine (on the receipt of 2*s.* 6*d.*) in the Liskeard and Tavistock districts. What Sir, is mining coming to, for one to report upon the surface and underground operations, machinery, the mineralogical and geological stratification, the economy, management, and the many other practical departments connected with a mine, who never saw a mine in his life?

Since writing the foregoing, my attention has been drawn to the following, from a weekly contemporary, published on August 10, in which the editor writes—"Is a

morning paper of last week we observed two Stock Exchange 'tip' advertisements, which at once attracted our attention. Here is the first one:—
 "How to increase 1000. To 10000.—This can only be done by the purchase of well-selected English mining shares, which pay 25 per cent. per annum, whilst others advance to 500 and 1000 per cent. profit on the outlay, sometimes within a few weeks after purchase. — receives the earliest information relative to all the latest improvements in the mines, &c.; consequently can give the best advice, and recommends parties seeking safe and profitable investments those shares which are certain to advance in price. — For sale, a few shares in a copper mine in Cornwall, at 12s. per share; it will eventually pay large dividends. Every information given personally, or by letter. A list of the most promising mines forwarded on application to —, mine shareholder. This is something like a 'tip.' See what is promised. Talk of your 'tips' on the turf! why sink into miserable insignificance by the side of this. For the risk of 12s. (what a remarkable sum!) no less than 10000. will be won; and in all cases the trifling interest of from 500 to 1000 per cent. is promised, on an outlay that may be trusted to the tipster."

Another advertiser, whose extraordinary omniscience and experience of 12 years in every department of mining (by-the-by he must have left school at a very early age), feels himself capable of advising "with confidence, and safely recommends" divided mines, paying from 20 to 30 per cent.; whilst progressive mines, carefully selected (by him), frequently advance 300 to 500 per cent. My opinion is that he would find much difficulty to select one that will pay the purchaser 30 per cent. for two years on his outlay; or that he could point out any progressive mines that shall pay 300 to 500 per cent.; if he can, I would recommend him to keep the stock for his own private purposes, for he assured he will find the profits useful, because the instances are so very rare.

One more—"Successful investment in British mines depends on a minute and comprehensive knowledge of the subject. Capitalists unacquainted with the nature of mining operations and the market, should act under the direction of an experienced agent;" and of course refers to himself as possessing all the qualifications. "He has orders also in well-established British mines, where a rise of many hundred per cent. may be expected." By whom is this great rise expected? Is it by the experienced agent? Why does he not keep the shares himself, and thus reap the benefit of his own experience? Why so liberal in offering to others what he may require himself? If the rise be expected by the seller—why does he make such a sacrifice for the advantage of persons he never saw or heard of before? Such excessive and disinterested philanthropy is rare, and only to be met with within the circle of mining shareholders!

One more of the same class, and I have done for the present. Possessing the power of prophecy, and seeing into the ground further than most men, promulgates opinions of the most enlightened kind. A few months since, the public were told of the extraordinary wealth, yet undeveloped, of certain mines (shares of which he was desirous of selling); one in particular would, in all probability, be worth in a short time 100,000*l.* Several months have fled, and although the mine has since been made, the shares remain about the same price. I was forcibly reminded at the time of the notorious Great Bryn and Great Dinas Copper, whose wonderful riches were never developed; and after a brief existence were closed with other gross attempts to swindle.

In conclusion, I would recommend such persons to reserve all their vast prospective wealth to the replenishing of their own exchequer, and not lavishly proffer to others that which will keep them from the debtors' prison, or the more accommodating Gaol.—Sept. 2. ALPHA.

SOUTH AUSTRALIAN MINING, &c.

Sir,—Your readers may not be aware of the financial and other condition of this colony, for the official year 1856-57:—
 Public Income, £50,000*l.* in excess of the expenditure.
 Exports to like extent in excess of the imports.

Shipments from Adelaide: Value of wool, \$90,000*l.*; and the same amount for wheat, and flour, and ore. Population, 100,000 souls only; labour high and scarce; food plentiful and cheap. Further food discovery has been made in the River Murray of cod-fish—one weighing 80 lbs., and one of 250 lbs., having been sent down to the towns. We are supplying the other colonies with wheat at 5s. 6d. per bushel of 60 lbs.; flour 12*s.* per ton, for cattle feed. We are also shipping wheat and flour to England, India, &c. What we really need most is miners and mine labourers; when they are here we shall appear rich, and our staple supply of copper will be secured. It is to be regretted that this class of emigrants—mine labourers, even with families, are not sent us; and it is equally strange that more miners do not come out, and set to work on our land and tribute; they might make fortunes at it. Fancy such a fine mine as the Kapunda, and many similar, lying idle from want of hands. We have no doubt but the owners of the extensive and valuable malachite and copper ore, and, we believe, silver ore, discoveries north of Adelaide would give facilities and inducements to men competent and willing to realise the riches of that district, which Messrs. Wallington and Bull have secured, and which are represented as being equal to those of the Burra Burra.—Adelaide, June 27. ARTHUR AND JORTIN.

COPPER MINING IN SPAIN.

Sir,—In your Journal of last week I saw a short article on the Mineral Wealth of Spain, one paragraph of which is as follows:—"Veins of copper, the most prolific in the world, have up to the present time been found in the province of Huévea alone, and this metal is known to exist in all parts of Spain."

It is not my intention to show how faulty this paragraph is, in leading your readers to suppose that in the province of Huévea alone are copper mines worked, when the fact is, that in Biscay, Asturias, Arragon, Catalonia, and other parts of Spain, many and rich ones are in production; but my present object is to draw your, and the public, attention to the extraordinary district of Huévea, as present completely unknown in this country, which is so inadequately described in the article, but which is destined, ere long, to take its stand as the first district in the world, and produce an effect on the copper trade, from the insatiable size of its deposits, and which, unless we hear of some other, will far outstrip the hands of Spanish and French capitalists. The mineral district of Rio Tinto, or Huévea, extends from the province of Seville, for a distance of 36 leagues, to the frontier of Portugal, and from thence to the Sierra de Granadola (about a day's ride from Lisbon), where it apparently terminates. Until the last five years, its immense deposits have remained untouched since the days of the Romans, who have perforated the country (so to speak) in all directions; not, it is supposed, in search of the ores we now seek for, but looking for the little veins of rich grey copper, which run through the masses of poor ore. Until five years ago the only mine worked in the district was the famous Government one of Rio Tinto, a mine so well known in this country that I shall say but little about it. So great is its value, that two years ago, when there was an idea the Spanish Government would sell all their mines, 500,000*l.* was subscribed in Seville in 48 hours for the purchase of it. Its present depth is 85 yards, and the mass of pyrites on which they are working has a mean width of 70 yards, and an average of 4½ per cent. A survey, by order of Government, was made last year by two engineers, who state in their report, printed in Madrid, that the mine, properly worked, could produce from the ore known to exist 500,000 tons per annum for eleven centuries and a half. It could keep its present production from the pillars of stone of the world (which system it is worked) for 500 years. This, from the length of time it has been worked, is, of course, the leading mine of the district, but there are others lately commenced, both in Spain and Portugal, which I have not the slightest doubt will eventually rival it, as the geological formation of the district, throughout its whole extent, is of an uniform character. The quality of the ore likewise differs but little, being masses of pyrites, without any admixture of earthy matters, varying from 3 to 100 yards in width, and lying in beds, sometimes compact, at others separated into layers of different thicknesses. They contain from 1 to 5 per cent. of copper (the average being about 3½ per cent.), and from 40 to 50 per cent. of sulphur. An analysis made in Germany of some ore from the Government mine gave the following result:—Copper, 5.00; iron, 43.58; sulphur, 51.31. The masses are often found within a few feet of the surface, and the system of working them, lately introduced by a French engineer, who has the management of several mines, is to remove the upper covering of earth, and work them like quarries.

Among the mines lately re-discovered (for that is the proper term, since the old "poor" and "unprofitable" are the best guides to these mines), may be mentioned in Spain, the Tharsis, Valverde, Valcayo, Zambora, Ambel, Nueva California, and others; and in Portugal, the Santo Domingo, and Granadola, or (as it is called) the Rio Tinto of Portugal, &c.; and when I mention that one of the above extracted in the month of July upwards of 9000 tons of ore, I think my wishing to bring this district to the notice of my countrymen, before it is monopolised by foreigners, needs no excuse, and that the inhabitants of the province are not far wrong when they style it the "California of copper."

GREAT SHEBA CONSOLS.

Sir,—From Capt. T. Richards's remarks, it would appear that my stating the mine would give a dividend in twelve months with good management, was the means of reinstating me as manager, as well as causing the dismissal of Capt. Richards; but this was not the case, as I never applied for the situation. Capt. Richards had ceased to be agent some months before I was appointed.

Now, in reference to my giving dividends in twelve months, I could have done it in six, but I should have been working the mine merely to satisfy my curiosity, or my own ambition, which would ultimately become injurious to my employers, who would soon find the mine in the same position as it was when I took the management. When I resigned, four years ago, I discovered a large course of ore, which I considered would take an eastern dip, and I had a strong opinion that the eastern part of the mine should be explored, and disputing the mode of working proposed by Capt. Richards led to my resignation, after being offered an advance of wages to continue. I forewarned Capt. Richards of altering the mode of working, telling him I was a large shareholder, and if the western shaft was to be made an engine-shaft, it would lead to heavy expenses, as well as the loss of time, and in a short time the rich course of ore that was then visible would be dug out to no profit to the adventurers; and, in addition to this, they could by no means deepen the shaft or mine for a long time; but finding my advice was unnoticed, I reluctantly sold my shares, and left the mine. Three years elapsed, when he was asked to take the superintendence of the mine again, and was proposed by part of the same committee as was in office when I left.

The mine has lately been inspected by Capt. Pope, of Wheel Emma, who took a minute survey of the mine, and by his plan, in conjunction with my own, the mine is worked; and, judging from present appearance of the lode opened at the western shaft (Kelly Hole), there is no doubt but that my own report, together with Capt. Pope's, will shortly be verified.—Sept. 2. JOHN SPARCO.

WHEEL EMMA, AND ITS MANAGEMENT.

Sir,—I observed "Telegraph's" remarks on this mine, and concur with his opinion respecting the meetings being held at Totnes and London alternately; but he will not answer the purpose of parties connected, as they wish to keep it as a "close borough," which has generally secret things to manage. I attended one meeting at Totnes, and candidly stated what they were bringing the mine to. After this the meetings were held in London, where I followed them, intending to be present as proxy for four or five shareholders (my son being one of them), but they would not admit me to the meeting to state facts (which are stubborn things); they grounded their refusal on my not having any shares standing in my own name, yet after having some shares transferred to me by a gentleman present they still refused. The Chairman of this meeting held only two shares, whereas I attended to represent parties who held a considerable portion of the mine.

About five months since I examined the mine, when I found the engine-shaft about 6 ft. below the 34 ft. level, and I now find it is no deeper, notwithstanding nine men have been kept on ever since, jolting about on the benches the whole of their time, and the 34 ft. level men half their time. Now, how did all this happen? From the mine being inspected by Capt. Pope, and his opinion of the machinery on it will have to be removed, and indeed the sooner it is done the better. A wheel Emma shaft in this mine in the first instance, with the same water, would put it 30 fms. deeper than it now is. What are they now doing? Greatly increasing their monthly costs, and fast exhausting the little ore laid open, without making any new discoveries, and the consequence will be they will soon come to a dead lock; yet I am not surprised

when I think of the managers—parties who never knew anything of mining, or even how to erect a horse-wheel to answer a good purpose. Another of their failures has been the erection of a line of rods from Brook Wood water-wheel to Wheel Emma to re-pump the water, to again go over the wheel by a 14-in. plunger, which was more weight than the wheel could work; consequently the wheel would not go round, but the rods, bolts, and all gave way, and the wheel itself turned a half summer's salt. After putting the company to, I have no doubt, hundreds of pounds expense, they find themselves in a complete fix. This is even worse than the masterpiece of dialling held up in a report of this mine, which I found on an examination to be incorrect in every part, and such as any person calling himself a manager of a mine should be ashamed of having had anything to do with. It is now high time for every shareholder to narrowly watch proceedings and abandon the concern, as I see no chance of ever getting a shilling returned. I am now a shareholder, and shall attend the meeting; and the other shareholders would do well to be early in attendance, to run through the books, and make enquiries as to who sanctioned the erection of the line of rods from Brook Wood Mine to Wheel Emma, and also how it is to be paid for? Wretham, Sept. 1. N. ENKIN.

P.S.—Wheel Emma is a promising mine, sacrificed to aid Brook Wood.

NATIONAL BRAZILIAN MINING ASSOCIATION.

Sir,—The liberal manner in which you open your columns to free discussion is a great boon to shareholders who, like myself, reside at a distance from the metropolis, and are, consequently, indebted to your Journal as the only channel through which any information is to be obtained; and as on former occasions you have deemed my letters worthy of insertion, I again take the liberty of addressing you. I have perused with great interest the letters of your correspondents "W. H. V.," whose remarks combine the feelings of a gentleman with the language of a scholar; but notwithstanding his hatred of persecution and his abhorrence of humbug, it is clear that he looks at the Foreign Share List as the thermometer, barometer, and hydrometer, to which a genuine shareholder should confine his attention. Surely, it is a matter of deep regret that, while political events paralyse the industry and cripple the commerce of Hindostan—while the consumption of cotton and sugar are increasing, and its production diminishing—while a railroad is being completed, bringing within three weeks of England our magnificent estate of Rotalia, with its thousands and tens of thousands of acres capable of producing sugar in the largest quantity, and cotton in its finest fibre—all the advantages to be derived from such a state of affairs are destroyed by a senseless persecution, of which no one knows the object, but the result of which, as "W. H. V." most plausibly observes, may be found on reference to the Foreign Mines Share List.

Mr. Editor, I affirm that, independent of the uncertainties of mining, this company possesses a property which, with the exercise of a little common sense, a little commercial influence, a little Brazilian experience, a smothering of bad feeling, and a cultivation of good, would raise our shares to a value far beyond the most sanguine expectations of those unacquainted with the subject. I venture, Sir, to say that, with good management, our shares might attain a real value and a permanent price beyond those of any joint-stock bank in London.

But I turn from this prospect, so true and so cheering, to another, melancholy in its aspect, and threatening in its results. I see the negro, hitherto confiding in, and aided by, European ingenuity and experience, placed in situations where the practical skill of European science is often of no avail. I hear the dreadful crash, the walling of the living, and the groans of the dying; and I ask, whence comes this great calamity? Am I as a shareholder responsible?—Is my soul to be clogged with the crime of this catastrophe? I say no: let Mr. Shepherd, or those who, by thoughtlessness, ignorance, or infatuation, or a combination of the three, have brought on this barbarous calamity, bear alone the chastisement of the guilt they themselves may have incurred.

Surely, such a body of evidence might be collected, and brought under the notice of Her Majesty's Attorney-General, as to warrant at least that official in demanding an explanation.

In England an accident at a mine, occasioned by the negligence or ignorance of the manager or overseer, is sufficient to bring him to trial; and if in England, why not in Brazil, as our mines in Brazil are evidently, by the proceedings in Chancery, brought within the jurisdiction of the English criminal courts? Leeds, Sept. 2. A SHAREHOLDER SINCE 1835.

Meetings of Mining Companies.

THE TINCROFT MINING COMPANY.

A general meeting of shareholders was held at the office of the company, Moor-gate-street, on Thursday, Mr. JOHN FIELD in the chair.

Mr. HIRSH WILLIAMS (the secretary) read the notice convening the meeting, and the report of Mr. Fras. Pryor, the manager, from which the following is condensed:—
 Our surface operations are going on well, and so far arranged that we can now return a ton of black tin, from the same quality stuff, as cheap as any mine in Cornwall. We hope to sample, on the 23d inst., about 351 tons of copper ore. On again carefully reviewing our prospects, I beg to say the mine never looked better since it has been under my control than at present; and, although I have not reported any reserves, no ground has been taken away from the bottom of the 168 at Martin's east, and only a small portion from the back; therefore you will find we have some considerable reserves in stock. At present I prefer extending on the 173 east and west, and at our next meeting I have no doubt of being in a position to lay before you statements of our reserves as will be very satisfactory, and will also be borne out as facts when they are taken away. There are employed on the mine 377 persons, being an increase of 21 men since the date of the report presented at the last general meeting.

A statement of accounts from Jan. to April, both inclusive, was submitted, from which the subjoined is condensed:—
 Tin and copper ore sold £7877 8 2
 Arsenic sales 35 14 8
 Cartage of tin ore 1 11 11
 Income-tax paid 66 10 6
 Cost-shares, &c., Jan. to April 6721 2 11
 Extra disbursements, interest, &c. 254 7 3 = 6975 10 2

Balance profit, four months £1035 7 1
 Leaving assets over liabilities, 4967*l.* 9*s.* 3*d.*

The CHAIRMAN, in moving the adoption of the report and accounts, said Mr. Pryor, the manager, was in attendance, and would be happy to answer any question. The net profit for the four months was 1035*l.* 7*s.* 1*d.*, but he was glad to inform them that the profits subsequently made had considerably increased.

Mr. PRYOR observed that the value of the materials now on the mine was 1175*l.* Mr. FRANKLIN contended that dividends had been paid when profits did not warrant it, and insisted that the 715*l.* 2*s.* 6*d.*, the value of the materials, ought to be added to the 1035*l.* 7*s.* 1*d.* profit; and the accounts should not be adopted until it was added.

Mr. PRYOR replied that the dividend had never been paid out of profit, and that the accounts were properly made up; they could have money and materials, but if they were to stop the mine the materials would fetch the amount, as they were estimated at cost price.

Mr. BALLET was pleased to hear the way the accounts had been canvassed, and if anything wrong, Mr. Franklin would have been able to show it; but he (Mr. Ballet) felt certain the accounts would bear the closest investigation. It was the first time he had had the pleasure of meeting the gentleman who had audited the accounts on a former occasion; and some alteration might be made, although it would make no difference in the result.

Mr. FIELD, who succeeded Mr. Field in the chair, said the directors were much obliged for the suggestion made, and would pay attention to it in future.

The report and accounts were then adopted, with one dissentient, and the proceedings terminated with a vote of thanks to the Chairman.

EAST INDIA COAL COMPANY.

An extraordinary general meeting of proprietors was held at the office of the company, Gresham House, Old Broad-street, on Monday, Sir T. H. MADDOCK in the chair.

Mr. HATYEN (the secretary) read the notice convening the meeting.

The CHAIRMAN said, they were aware of the object of troubling them upon this occasion—to increase the number of directors, it having become necessary to add one or two more, in consequence of having lost two, Mr. Burge and Mr. Grant, another who was absent in India, and two who never attended the board. It was, therefore, almost impossible to obtain regularly the attendance of three to constitute a board.

Mr. GEORGE ARMITAGE said, he had much pleasure in proposing Mr. Wm. Shaw, who was a large shareholder, and took great interest in the company; Mr. Shaw was a resident in London.

After Mr. LINTHWAITE seconded the resolution, which was carried unanimously. After a lengthy discussion, it was agreed unanimously that the election of another director should be adjourned till the general meeting in December next.

The CHAIRMAN said, before they parted he begged to inform the shareholders that there was present the gentleman who had charge of their property in India, and if they wished to make any enquiries, Mr. Taylor would be happy to answer any questions.

Mr. LINTHWAITE said he had two questions to put—first, whether the coal had been assayed by the proper authorities in India; and next, whether the company was tendering for the contract for supplying the Government?

The CHAIRMAN said the satisfaction of informing the meeting that the board had received a letter from Calcutta, dated July 15, stating that a tender had been sent in to the East India Company to supply 350,000 maunds, nearly 12,000 tons, for the use of the company's steamers, from Aug. 1; and as previous to tendering it was necessary to have a certificate of the quality of the coal, the agent at Calcutta had sent 35 maunds to the officiating Mint Master, who had assayed them, and certified that they were well adapted for the purpose; although, of course, it would be some days before the agent would know whether the Government had accepted the tender.

Mr. TAYLOR, the law manager, could assure the shareholders that the property was as good as represented at the time of the formation of the company, and he felt satisfied that in a short time it would pay dividends. They were sending large quantities of coals to Calcutta, and when the Tropic engine was completed, which was promised to be in full working order by the end of July last, they would raise from 2000 to 3000 maunds per day. He was glad to inform them that the mine was 800 miles distant from the disturbed districts. The demand would be so great that they would be able to meet with a ready market for all they could supply. The opening of the railroads would materially increase the consumption, as it was now used in the locomotive unworked. He (Mr. Taylor) had not the slightest doubt of the ultimate success of the undertaking, and the property would last for some hundreds of years.

Mr. LINTHWAITE wished to know whether in Mr. Taylor's opinion the coal would improve in depth?

Mr. TAYLOR replied that was the case throughout the world in coal mines—either in England or India. The steam-power they now had, being far more powerful than any before sent to India for colliery purposes, was simply sufficient for every purpose.

The CHAIRMAN would be glad if any proprietor had any further questions to put, as he considered it a great advantage to have Mr. Taylor in attendance. There were two important facts connected with the undertaking—the coal had been officially certified to be adapted for steam purposes, and tenders had been sent in to the Indian Government.

A vote of thanks to the Chairman terminated the proceedings.

CHANCELLORSVILLE COMPANY'S WORKS AT FROTHAM.—We expect to be able in our next Journal to state the day on which the active operations on a large scale will commence.

MINING NOTABILIA.

EXTRACTS FROM OUR CORRESPONDENCE.]

MINING AGENTS.—Knowing your desire to expose any abuses, and believing that the mine agents have the fault for incurring large expenses in dinners, &c., I beg to state that, at the copper ore sale on Thursday last, 33 persons dined, but only 5 witness mine agents, and the stewards (as that 56 were the copper companies' agents), at an expense of 12*s.* 7*d.* each; in addition to which, the said agents are allowed 16*s.* by each company, in lieu of dinners—
 12 companies, at 16*s.* £19 12 0
 Copper companies' agents, 36 at 12*s.* 7*d.* 10 7 3
 Horses' hay and corn 2 0 0

So that from 25*s.* to 28*s.* every week is expended in the sale of copper ore, and by the copper companies' agents alone. Perhaps this is not generally known; but some reform should take place in this department.—Observer, *Swansea*, Sept. 3.

TAVISTOCK AND ITS NEIGHBOURHOOD.—In June last I gave you some of the results of my visits to the mines here, and did not hesitate to express my views thereon. In No. 11, I alluded to SOUTHERN CONSOLS, western ground, believing that part of the mine to be productive of copper ore. Since that the lode has been cut rich in the 40; and where they cut the cross-course, and as a matter of course, the lode become divided. When the lode is again reached west of the cross-course it is evident to me that it will be productive again, and continue so until another cross-course is met with. A long piece of ground being untried from the present one to the most western cross-course or riven dike, the most favourable results may be anticipated.—LADY BERTHA is now, I am glad to see, again showing some life, after sleeping so long, and I do trust the adventurers will follow up their present good prospects.—TAVY CONSOLS is also much improved, and must ultimately become a good mine. The improvement is in both back and bottom of the 46. The shaft is being also sunk below the 60, which ought to have been done long ago, as a great change has taken place in the ground between the 56 and 92. The shareholders here may congratulate themselves on having a good and lasting mine. Having been unwell or I would have sent you these remarks before, but will now, with your permission, give you my opinion on some of the other mines I have mentioned in my former letters.—AN OLD HAND.

FORTUNATE ENTERPRISE.—Wanlas Lead Mine (Denbighshire) appears likely to furnish another instance of good fortune falling to the lot of a fresh body of adventurers, at well nigh no cost to themselves, but unhappily to the most mortification of a worn out and dispirited company. There had been 17,000*l.* spent upon this adventure by a previous company, who drove a level from the River Alun, through a barren district, in order to reach a master vein, wrought by open workings for a great distance east of the surface. There was a large amount of money expended, and a great quantity of work was carried out in their works, and did so much mischief, that they abandoned the mine. A few months since it was taken up by a few gentlemen who knew the character of the country, and they have succeeded in reaching the lode, which is ore throughout, and of considerable width, with 56 fms. of backs before them along the entire lode. Great profits are expected from this well-known lode, which has never before been seen in depth.

AT PENTRE LYGAN, the water has left the shaft, and the captain is certain of his ability to penetrate under measures before the springs are again replenished by the winter rains. No difficulty will then be found in reaching the lode known to traverse this portion of the seat, from which upwards of 100,000*l.* profit was obtained by a previous company, who could not succeed in adding the adjoining lands to the mine, in consequence of their belonging to so many small proprietors.

HUCKWORTHY BRIDGE.—On Tuesday last I visited this mine, and found it situated in the parishes of Sampford Spiney and Walkhampton, Devon, on each side of the River Walkham, near the junction of granite and kilaas, and bounded immediately on the west by East Wheel George and Wheel Rose, and on the north by East Robert, all of which lodes pass through this seat, and are intersected by various cross-courses. There is also a large vein course running parallel with the lodes a few degrees south of east, towards a rising hill of about 15 ft. in a fathom. Our old cross-cut has been driven 32 fms., to intersect one of the lodes underlying north, and driven upon outward 36 fms., with every indication at an early period, and at a deeper level, of producing a fair quantity of ore. The adit at present is not more than 12 or 14 fms. deep; the lode is from 3 to 4 ft. wide, composed of mundie, prias, quartz, and occasionally good stones of sulphate of copper. By continuing this adit about 50 fms. further east they will intersect the great cross-course, and will at this point be 30 fms. deep, where the lode is likely to become more settled, and where, I believe, they are likely to be successful in discovering a quantity of ore. The seat is very extensive, it being about 80 fms. from east to west, and 600 fms. from north to south, the ground easily wrought, it being a soft clay-slate, and every facility for working the mine cheaply, having ample water-power, and if prosecuted with vigour, I have no hesitation in stating my belief that the adventurers will be amply repaid for their outlay.

KELLY BRAY.—We have seen several of the stones which have been forwarded to the office of Mr. King from the new discovery in the 35; they appear to have been broken indiscriminately from the lode, and comprise rich sulphurets of copper combined with iron; some are of more than average quality, and if existing in any large quantity, can be dressed at an economical rate,—these would appear to come from the walls, while those from the vein seem to be of a durable character, giving every promise of being continuous. Judging from the favourable indications of the specimens, it may be anticipated that a good course of ore is being opened to the adventurers.

AT SOUTH CUDDRA, the engine was set to work on Saturday, and is working admirably. A cross-cut is being driven north to cut the large lode, which will be reached in a few days. The South Cuddra engine lode will cross this lode a short distance east of the shaft, and form an important junction therewith. A cross-cut is being started south to cut the south lode, one of which will be reached in a short time. The prospects are more than usually good.

NORTH DOWNS MINE.—The reported improvement in this mine, alluded to in your City Article of last week, is incorrect; so far from there being any improvement, there is no point in the mine that contains ore enough to value. In two places there is no lode to be seen.

BAMPFYLDE MINE has been lately examined by Capt. James Pope, of Wheel Emma, whose report is highly favourable to the prospects of the shareholders. Operations in the 30 and 40 are at present interrupted by the stoppage of the eastern wheel, which is being made permanently strong by an improved axle. In a few days the works underground will be proceeding with. There is another lot of 22½ tons of copper ore, of 20½ produce, at Swansea, and a further lot of about 30 tons will be shipped next week. The new, or No. 4 shaft, is down 11 fms. below adit. The miners who have been driven from the deeper levels by water are now on tribute at 13*s.* 4*d.* in the western adit of Bampfylde lode, and in eastern adit of Poltimore lode.

ANTIMONY.—We understand that Old Trewithen Consols (Wheal Rose) Company are about landing a parcel of fine antimony from their mines in Cornwall, which will be offered to public competition in the London market, and will no doubt realise a good price, as there is a great dearth of foreign ore.

SORTIDGE AND BEDFORD MINE.—Several shareholders having expressed a desire to sink the shaft deeper, a special meeting is convened for the 14th inst., for the purpose of resolving on resuming operations.

EAST PROVIDENCE.—The new discovery is a little smaller than last week, but is very rich indeed for tin; about 3 in. of it for two-thirds the height of the end is worth 4*s.* per barrow, or more. It may be expected to enlarge as driven on. Altogether, it is very promising indeed.

AT NORTH ROSKEAR MINE, the 164 fm. level west has rapidly improved in value, being now worth 130*s.* per fm. Other parts of the mine approximating to North Wheel Crofty are also looking much better.

WHITCHURCH DOWN CONSOLS.—These mines extend over 500 fms. on the course of the lode, and are supposed to be a continuation of the Devon Great Consols, being in the run, and the stream being of the same mineral character. The underground operations are considerably advanced, and are highly beneficial to the company. The engine-shaft is sunk 33 fms., and levels extended to within 6 fms. of the main lode, which is fully expected to yield an abundance of copper ore. A winch is sunk from the 12 to the 23 fm. level, on a lode which is estimated worth 104*s.* per fm. This lode is opened upon in the adjoining mine, and is set on tribute of 10*s.* in 11. The same lode is also yielding rich ore in the 40 fm. level. The meetings of this company will be held quarterly, when the accounts will be audited—it being a fundamental principle that the committee shall not allow the mine to be at any time in debt beyond the available assets.

THE SOUTH BOG MINING AND SMOELTING COMPANY (Limited) have received their certificate of incorporation under the Joint-Stock Companies Act, 1856-7. Capital, £4500*l.*, in 1300 shares of 6*s.* 10*s.* each.

CAMORNE VEAN.—The 106, west of shaft, is worth 30*s.* In the 140 the lode is 2 ft. wide, producing good stones of ore. The 213, east of shaft, is worth 104*s.* per fm. The stopes in the back of the 40 are worth 104*s.* per fathom. The shaft sinking below the 213 is worth about 20*s.* per fm.

NORTH GRAMBLER.—During the last two or three days, they have cut a good lode of gooson and ore; and from the spirited way in which it is intended to work, it is fully expected to be a good mine. Shares have risen from a nominal price to 2*s.* a share.

TRELOWETH.—A great improvement has taken place at this mine in the 50, west of Woodfall's shaft; the lode is yielding from 3 to 4 tons per fm. of superior quality ore. A stone weighing upwards of 1 cwt. has been forwarded to the office of the company; this we have seen, and should judge the mass to give from 15 to 20 per cent. It is not to be inferred from this that the lode is equally as rich as this specimen, but at the same time it gives a good indication of the permanency and future prospects of the mine.

ST. DAY UNITED MINES.—Wheal Unity district is very much improved, and at the meeting to be held on Sept. 12, a dividend of 1000*l.* will be declared.

AT ANGERACK CONSOLS, the new engine-shaft is down from 9 to 10 fms., and progressing favourably. A cross-cut is being driven from the rich lode towards this shaft; when communicated, the ventilation will be perfect. The ore ground discovered will then be taken away, and the engine-shaft sunk without interruption for deeper levels. The engine-house is let to the builders; the engine and other materials are being taken out, and will soon be brought on the mine.

AT GREAT HEWAS UNITED, the west shaft is completed to the 90, and the level extended nearly 3 fms. east; the lode will be taken down in a few days. In the east mine, the new shaft is 4 fms. below the 20. In this level cross-cuts are being driven north to intersect the middle and north lodes, and south to cut the south lode. The mines are looking well, and large reserves of tin are being opened out, which must materially increase the returns when the shaft is sunk to the 36 and 56.

AT TOKENBURY CONSOLS, a discovery has taken place—a lode 3½ feet wide, containing rich stones of black and yellow ore, has been intersected in the deep adit level. It is supposed to be the South Caradon main lode, and likely to greatly improve this property. Considering the amount this company has expended—£7,000*l.*—in working the mine for the last 10 years, it is looked upon as of great importance. The shares are being eagerly sought after at 2*s.*, but few sellers under 5*s.*

MR. H. D. WOODFALL, one of the committee of the Trelovel Mining Company, is now in Cornwall; on his return a meeting of the shareholders will be convened. Mr. Woodfall is likewise a director of the Altan Company; for many years was one of the local managers there, consequently he has great experience in mining matters, and his opinion is looked forward to

MEMS. OF MINES AND MINERS.—No. XV.

Mr. WILLIAM BURGESS, sen., of Camborne, is one of the old school of miners still left; he forms almost the last link of the present to the preceding generation. The friend of many and acquaintance of nearly all the subjects of these brief memoirs, it would have been an unpardonable oversight to have excluded his name from so worthy a catalogue. Associated as Mr. Burgess was with mines and miners for a time nearly equaling the limit usually assigned as man's sojourn, he has indeed witnessed great changes, and with a memory still vigorous can recount many a long-forgotten (but to him) history. Oh! for the experience of such a man to be but written, to let what would now be called miners know what mining was in his early days, and what it is now. He could indeed a tale unfold; he could narrate a catalogue of the eccentricities of his friend Trevithick, the wit of Vivian, the ability of Woolf, the honesty of Reynolds, and the liberality of Bassett. He could speak of Camborne as a hamlet; of Tucking Mill as two or three houses in a valley; when Lanner Hill, from Comfort to Redruth, was innocent of houses, save a few farmsteads; when the now almost dry rivulet was a goodly stream, and the place echoed with water-driven stamps; when the place swarmed with half-clad biddle boys; when there were no tramroads, few ore wagons, and when pairs of mules were as common as horses now are. He has witnessed the rise and fall of many mines as well as miners, and the occasional wealth and poverty of each. Our first remembrance of Mr. Burgess was as host of the hotel at Pool, the very centre of mining; afterwards in the same capacity at Camborne. He was an extensive but very cautious adventurer; he had good advisers as friends. Mr. Burgess has for many years retired from active life, as far as his nature would allow him, his natural industry not permitting that for any length of time. Mr. Burgess had several sons, most of whom were in some way connected with mining pursuits. The youngest is now the leading auctioneer in this peculiar department in the county of Cornwall. We do not know the age of Mr. Burgess, but at the commencement of our acquaintance, more than 35 years since, Mr. Burgess was "old Mr. Burgess" then. Long may he live yet to talk over his reminiscences of bygone days, and to enjoy the pleasant reflections of mature age upon a well-spent life, which we feel Mr. Burgess can, and deservedly does.

The late Mr. JOHN HODGE, St. Austell.—*De mortuis nil nisi bonum* is applicable to the memory of this lately-deceased and universally regretted friend to everything and everybody connected with mining. He had his trials and troubles as well as other men, and his foibles, too, like them, but to these we refer not. Go into his neighbourhood; every one speaks well of the memory of Mr. Hodge. A feeling heart, a liberal employer, kind master, and sincere friend, deserved such offering to their memory, they are not bestowed in vain on him. Mr. Hodge was a bold and extensive speculator. A short life prevented many promising speculations in which he was interested from being thoroughly tried. As a tradesman in a very large business, his conduct was marked by sterling integrity, and a frank, open-handed manner, that inspired a confidence at the first interview, which we never heard or feared he could betray. We, with all who knew him, regret the hiatus his death occasioned, which is not to this day, and will not easily be, filled up.

Mr. NICHOLAS HENWOOD, Penryn.—This gentleman, for some years purser of South Dolcoath, Wheal Cock, Wheal Union, and other mines, was the first to export the serpentine of the Lizard district to Bristol for the manufacture of sulphate of magnesia (Epsom salts). He also wrought the beautifully white steatite at Gw Gwaze, for the manufacture of a superior description of porcelain, by Messrs. Flight, Barr, and Barra, of Worcester, a most costly and expensive undertaking, involving a great loss. He also worked the china-clay found near Penzance, and was the first to undertake the lead mine on that estate. Lead mining in Cornwall was little understood then. He also worked fire-clay to some extent in the parish of Budock, and ochre in Constantine. He was a bold but unfortunate adventurer, most of his mining speculations never having been sufficiently tested to give them an efficient trial. In addition to those in which he acted as purser, he ventured in several western mines. He was for some years proprietor of the Western Hotel, Penzance, in which capacity he won golden opinions from all with whom he came in contact. After leaving Cornwall and mining for some years, he resided at Exbury, in the New Forest, Hampshire, where he died at the age of 65, leaving behind him a name and memory of which his descendants may well cherish a just pride. In his connection with mines we may witness a mind endeavouring to develop every natural production that came under his notice, and a determination to ascertain their qualities and utility, at any cost or inconvenience. Had he confined his attention to one pursuit, or had he been actuated by selfish motives, he would probably have been more successful. As it was, he rendered considerable service by his experience, though he neither enriched himself or his family by his adventures. The pen of his son could have added many things more of this good man, but he wishes to draw a veil over his memory, further than its association with those among whom he delighted to be reckoned during his lifetime.

Capt. WILLIAM VERRAN, Llanidloes.—This thoroughbred Cornish miner (a Bissos Bridge boy) raised himself, by perseverance and strong natural abilities, to his present position in life. He has known hard work, and what a miner's experience should be, and has inculcated and enforced the same on a family of sons intended to follow their father's profession. These youths, now in their prime, are well known as talented persons in their profession. The subject of our notice was in early life employed at the dangerous, but curiously worked, Carnon Tin Stream Mine, where more than ordinary mining skill was required. Difficulties and obstacles, at that time insuperable, prevented its prosecution. Capt. Verran was one who, from his abilities, mining acquirements, and excellent testimonials, was early selected to go abroad to take charge of the gold mines. He found powerful patrons in Carné, Wyllys, and other great mining proprietors. We subsequently find him managing several mines of consequence in England and Wales. Capt. Verran has enjoyed, and still enjoys, considerable celebrity as a judge of mining in all its branches, to which his long and varied experience at home and abroad justly entitles him. He is at present engaged in the management of a mine in South Wales, in which some important discoveries have lately been made, and which we trust will amply repay him for his arduous and long-persevering labours, in which wish we know we are seconded by his numerous friends and acquaintances.

Capt. PASCOE (Long Rock Mine, Ludgvan).—If to deserve success were to command it, this gentleman undoubtedly would have shared Fortune's smiles in a high degree, but like thousands of others he found the jade fickle indeed; sometimes showering her favours upon him with a liberal hand, at others almost depriving him of even the necessities of life. Mr. Pascoe was originally a working miner, who was an acute hand at dressing copper ores. He took a large quantity of furnace slags on tribute to dress for the copper left therein by the smelters. At the refuse heap of the Brass Wire Company's work, near Bristol, he amassed a considerable sum of money. His darling scheme, which appears to have haunted him from childhood, now became the object of his sole endeavour. On the sea shore, midway between the towns of Penzance and Marazion, at the distance of one-third of a mile from high-water mark, is the ridge known as the Long Rock, which may be reached on foot at two-thirds ebb, but is accessible by boats before that period, though nearly covered at full tide. At half ebb a fine ledge, containing argentiferous galena and antimony, of peculiarly fine quality, known as needle antimony, may be seen: at a little distance south, at low water, fine lodes of tin and copper may be detected; these lodes are so large and valuable that in any other situation they would constitute a fair, legitimate speculation; but in this it was a bold effort indeed to grapple with natural difficulties in their sternest forms, as in southerly gales heavy seas and a tremendous surf break over these rocks. Nothing daunted, however, Mr. Pascoe, supposing he had realised sufficient funds for the enterprise, boldly entered on the work. By dint of amazing industry, in the face of disappointments and difficulties that would have appeared insuperable to everybody but himself, he sunk and collared up a shaft for a few fathoms, and cut a lode of the most promising character—so much so, that he now, at his own entire cost, erected a steam-engine on the shore to work a series of flat-roads to the shaft. This, unfortunately, was not of sufficient power; delays, consequently, took place; many persons now began to think Mr. Pascoe would succeed, and sanguine hopes were entertained; but all were doomed to disappointment. A terrific gale came on, which hurled the whole fabric at the shaft to destruction ere he could complete his projected breakerwater. Many times did he calmly witness the wreck of his temporary appliances, but as often did he calmly return to his work. The crowning disaster above referred to occurred at the most unfortunate period possible for him; he appeared on the very eve of accomplishing all he desired. Had he been enabled to develop his discovery a little further, for which a few weeks would have

sufficed, he would, no doubt, have been supported by additional capital to have carried it out effectually; as it was, his money and credit were done. The adage, "Give a dog a bad name and hang him," could never be more correctly illustrated. Nothing could withstand the torrent of ridicule and persecution poor Pascoe endured; his engines, machinery, and appliances were ripped up and sold, and he declared a visionary, though it is by no means improbable that the mine might have been rendered remunerative by a little further outlay; indeed, it is in contemplation to resume it. Amid the regrets of the right-minded, the ridicule of the bad, and the taunts of the envious, Mr. Pascoe, in poverty, left Ludgvan, to resume his previous vocation; with what success we have not heard. He was a man of most exemplary character, industrious, frugal, and persevering. He is one of the instances in which even these qualities must succumb before untoward circumstances. His name deserves a notice here, for though he did not command success he deserved it, and it is not our duty to neglect merit in any guise.

INSPECTION OF COAL MINES.

From an analysis of the reports of the several Government Inspectors of Coal Mines for the year 1856, it appears that the number of lives lost in colliery operations during that period was 1023. Of these, 235 deaths were caused by explosions; 403 by falls of roof and coal; 210 by accidents in shafts; and 175 by accidents of various other descriptions.

In the South Wales district two explosions—one at Cymmer, where 114 were killed, and the other at Cwmavon, where 12 lost their lives—of a very disastrous character took place, and we consequently find the number (136) higher in that district than in any other. In North and East Lancashire the second largest number of casualties by explosion occurred, 24 losing their lives from that cause. In South Staffordshire and Worcester 21 were killed by explosions; in the southern districts (Gloucestershire, &c.), 13; in West Lancashire and North Wales, 12; in Shropshire and Cheshire district, 8; in Yorkshire, 7; in East Scotland, 5; in West Scotland, 3; in Derbyshire, Nottingham, Leicestershire, and Warwick, 3; in South Durham, 3; and in the northern district (Northumberland, Cumberland, and a part of Durham), 0; giving the total as above, 235.

The number of lives lost from falls of roof and coal were—in the northern district, 36; in South Durham, 25; in North and East Lancashire, 22; in West Lancashire and North Wales, 39; in Yorkshire, 19; in Derby, Nottingham, Leicester, and Warwick, 21; in the North Staffordshire, Cheshire, and Shropshire district, 19; in South Staffordshire and Worcester, 88; in the southern district, 34; in the South Wales district, 56; in East Scotland, 18; and in West Scotland, 26=403, as above.

Of the 210 who met with fatal accidents in shafts, the largest number suffered from casualties in South Staffordshire and Worcester, the figures being—in the northern district, 13; in South Durham, 8; in North and East Lancashire, 22; in West Lancashire and North Wales, 22; in Yorkshire, 19; in the Derbyshire district, 16; in Cheshire and Shropshire, 22; in South Staffordshire, 37; in the southern district, 12; in South Wales, 15; in East Scotland, 13; and in West Scotland, 11. The sundry accidents have been most frequent in the northern district, Durham, Lancashire, Shropshire, and Wales.

If instead of classifying the accidents we turn to the total casualties in the several districts, we find the most unfortunate to have been Wales, South Staffordshire and Worcester, and West Lancashire. Thus, in the northern district, under the inspection of Mr. Dunn, the accidents were—From explosions, 0; from fall of roof, 36; in shaft, 13; sundries, 24=73; in the South Durham district, under the inspection of Mr. Atkinson—from explosions, 3; fall of roof, 25; in shaft, 8; sundries, 26=62; in North and East Lancashire, under Mr. Dickinson—from explosions, 24; fall of roof, 22; in shaft, 22; sundries, 16=62; in West Lancashire and North Wales, under Mr. Higson—from explosions, 12; fall of roof, 39; in shaft, 22; sundries, 30=103; in Yorkshire, under Mr. Morton—from explosions, 7; fall of roof, 19; in shaft, 19; sundries, 7=52; in the Derbyshire district, under Mr. Hedley—from explosions, 3; fall of roof, 21; in shaft, 16; sundries, 6=46; in the Shropshire and Cheshire district, under Mr. Wynne—from explosions, 8; fall of roof, 10; in shaft, 22; sundries, 21=70; in South Staffordshire district, under Mr. Brough—from explosions, 21; fall of roof, 88; in shaft, 37; sundries, 10=156; in the southern district, under Mr. Mackworth—from explosions, 13; fall of roof, 34; in shaft, 12; sundries, 2=61; in the South Wales district, under Mr. Evans—from explosions, 136; fall of roof, 56; in shaft, 15; sundries, 17=224; in Eastern Scotland, under Mr. Williams—from explosions, 5; fall of roof, 18; in shaft, 13; sundries, 11=47; and in Western Scotland, under Mr. Alexander—from explosions, 3; fall of roof, 26; in shaft, 11; sundries, 5=45; making the total accidents for the year in the 12 districts 1023, as above.

Mr. Matthias Dunn refers, in his report, to several accidents which have occurred on private railways, constructed in connection with collieries, but which, from their not forming actually a part of the colliery, the owners contended were not within the pale of the Coal Mines Inspection Act. In his district no less than seven accidents had occurred upon private railways, in one recent instance upon an inclined plane five miles from the colliery. Upon this case there was some dispute, but the parties eventually yielded, and thus saved further appeal. It appears that Mr. Dunn had communicated with the Home Secretary upon the subject, and that his views coincided with those of Mr. Dunn. It, therefore, behoves all colliery owners to comply with the requirement of the Act, as to the reporting of accidents, whether they occur underground or at surface, upon any property in connection with the colliery.

Mr. Wynne complains of the eccentric views entertained by Mr. Rose, the stipendiary magistrate for the Potters district, with reference to the Coal Mines Inspection Act, from which it appears that as long as he sits on the Bench colliery owners may act in direct opposition to the Act with impunity. He also records a remarkable case of ignorance and neglect on the part of Lord Ward's ground bailiff and butty, whereby an explosion was caused, and 11 persons out of 14 met an untimely end. The ground bailiff stated openly that he was not paid sufficiently to be responsible; that the butty was responsible for the management, and that he (the butty) was one of the best butties in South Staffordshire. There are two shafts near together, and a gate-road round the workings from shaft to shaft. It was shown that the air in the shafts was constantly balanced or fighting, as was quite natural in such a state of things; that when a fire was placed at the bottom of the upcast shaft the smoke, instead of going up it, went back into the workings, but no one seemed to know why, so the fire was put out, and all attempts at ventilation abandoned. The engine was found to require repair on a Saturday, and no one went down the pit until the Wednesday following, when eight men went down with some fire on a shovel, but on lighting a candle found there was gas, and put out the lights; they then shouted up the pit to tell the butty it was so, and that he must bring the lamp; but this managing butty went down the pit with a naked light, and fired the gas before reaching the bottom; and such men as this he (Mr. Wynne) was told were the proper parties to be held responsible for the ventilation and management of mines.

He concludes his report by stating that very laudable efforts are now made to educate the mining population, and what are called iron and coal-masters' prizes generously provided; but he finds on examination that but a small proportion of colliers' children receive them. This will always be the case if the present system be pursued of giving bible and money prizes instead of something useful to a collier in after life—something that will tend to raise him higher in the scale than a common collier. If, for instance, the prize to the best boy was a session, free of expense, at the Mining School in Jermyn-street, it would be worth the cost to a parent of keeping a son at school until he was 14 or 15 years old, and would be an incalculable advantage to coal proprietors, by giving the boys enough scientific knowledge to enable them to turn the practical knowledge they afterwards acquire to good account, and thus become really intelligent overmen—a class so much needed in southern mining districts.

Mr. Herbert Mackworth says, in his report, it has been asserted with much plausibility that the use of safety-lamps engenders carelessness in ventilation. The risk from such a cause may be readily removed by the now almost universal rule, that as soon as the workman sees any indication of fire damp in his safety-lamp he is to leave his working place. His experience does not, however, agree with this hypothesis. The mines in which he had found the most numerous accumulations of fire-damp were those where candles were used. The same ignorance or recklessness which rejects the use of safety-lamps, *ceteris paribus*, neglects also the ventilation. That no very destructive explosion has ever occurred even from a defective safety-lamp, in some measure supports this view. The cost of providing, maintaining, and superintending safety-lamps to the owners is about three farthings per ton of coal. The colliers usually work at the same

price with Davy lamps as with candles, but 3d. per ton would amply cover any possible loss of time or work which might arise from imperfect light or other causes. The glass lamps of Clanny and Musser give as much light as a candle. Of the latter lamp Mr. Warrington Smyth reports that "there are nearly 18,000 in daily use in Belgium, yet no case of accident has ever been traced to the fracture of a glass." The construction of the lamp effectually prevents its being used in an explosive mixture of fire-damp and air.

Comparing the number of separate accidents in 1856 with those of 1855 there is no material difference; but, in consequence of several explosions being of a very fatal character, the number of deaths caused shows a large increase over 1855.

CORNISH COPPER MINING ENTERPRISE.

Authorities differ,—many state that Cornish Copper Mining presents greater inducements for the investment of capital than any other medium of the day: that railways, banks, canals, docks, and other descriptions of property, stand insignificant in comparison, not only as regards yield and profits, but likewise in respect to security and subsequent exemption from responsibility; whilst others add that it is often the vehicle chosen to traffic with public credulity, entrapping the unwary speculator into schemes unworthy attention, entailing loss and ruin to most associated therewith. Those, however, who wish to solve the question at issue, and feel at heart a desire to promote the home industry of our common country, are invited to peruse the following statistics:—

Mining fascinates more than it deters, and capitalists usually prefer investing money therein to most other speculative investments of the day; unfortunately, however, they prefer immediate premiums from gambling operations in the Stock and Share Exchanges to the healthy accumulation of wealth from gradual (though deferred) development of mineral riches underground. This is strikingly apparent in the mode of business adopted at the present day, as schemes too frequently are embraced in preference to legitimate undertakings. Cornish Copper Mining differs in toto from any other description of property—the past, whether attendant with success or failure, bears no reference to the future; until success be established the whole capital embarked should be regarded as sunk; reference alone should be had to future prospects and chances of dividends over calls—i.e., success in perspective, and not retrospective returns, should ever regulate the value of mining property. It is only of late years that enquiries are instituted as to the amount paid up per share, as in olden times purchasers looked to dividends from profits instead of premiums from market operations: the former add to the wealth of the nation, whilst the latter is a mere transfer from one pocket to another. The chief district in Cornwall for yield of copper ores is the Buller and Bassett, which stretches from Camborne to Gwennap, embracing the three other parishes of Illogan, Redruth, and Wendron, comprising an area of six miles in length by four miles in width, the strata, granite and killas (or clay-slate), being most uneven in their formation; at places the granite crops out to a considerable elevation, whilst at others it dips very many fathoms below the level of the sea; copper and tin have been found abundantly in both, but the larger and more profitable deposits are embedded in the granite, which indeed would appear essential to the existence of copper, as no profitable vein of that metal has yet been discovered so distant as three miles from it; the country is subject to frequent interruptions and hard heads of ground, which generally run in a northerly direction; ironstone is also very prevalent, especially in the killas or clay slate, whilst numerous cross-courses and elvans traverse both; the former usually north and south, and the latter about east and west; the clay-slate varies in depth from a few feet to upwards of 200 fathoms, and our forefathers were the first to mine in it for that hidden wealth which every day continues to disclose,—it is softer in its nature, and more easy to explore. The veins which produce the ore vary in each instance, both in thickness and direction, being denominated east and west and counter lodes. The whole district possesses innumerable peculiarities and characteristics, which, until a few years ago, were very imperfectly understood by the best of our practical miners, hence the loss and disappointment that formerly arose to those embarked in such pursuits; the aid of science and experience have done much to avoid those errors for the future, and we believe that no further exercise of judgment and caution is now necessary in mining than in the ordinary affairs of life. Capitalists should embark their money in dividend or sound progressive mines: it is no use mining without the elements of success, and it is far preferable to venture in a locality that pays than in another that hopes to do so. In this district, during the past 11 years, 28 mines have paid the enormous sum of 1,104,929l. 10s. in dividends; prior to the year 1845, 15 of them had paid 1,499,441l. in dividends, and the market value of the whole now amounts to a further sum of 1,241,300l.; thus constituting a total of 3,845,870l. against an aggregate expenditure of 239,989l. only; averaging 1602l. for every 100l. invested, or rather over 145 per cent. annually for the whole period of 11 years.

Situate in the very centre of these mines are East Basset, South Carn Brea, Copper Hill, Buller and Bassett United, South Buller and West Penstruthal, North Frances, and Old Tolgus United, being all traversed by the same cross-courses, within the same north and south parallel, and in their development showing every evidence of great productiveness in depth. Still the public hesitate to purchase therein, preferring to embark their money in market mines, though devoid in many instances of intrinsic worth, rather than wait a year or two for the development of those referred to, even with all but ascertained success established. In the same district, but without the range of the Buller and Tolgus, Dolcoath, and Seton cross-courses, are situate the Wheal Grenville, West Grenville, and South Condurrow Mines; the Grenville commands a market value of 16,000l. only, still the shaft sinking on Newton Moor lode gives every evidence of a course of ore right at hand. The West Grenville and South Condurrow are adit mines only, and are all but commercially valueless, as neither machinery is erected or capital subscribed to develop the lodes in depth, whereby alone profitable returns can be secured.

Mining enterprise, however *bona fide* in its character and progress, will not at all times prove successful at starting, but with the advantages of scientific improvements, aided by practical experience and judgment in the selection and working of mines situate in good and approved districts, with analogous and profitable ones surrounding them, no medium of investment presents greater chances of success, or so many instances of large and rapid fortunes being acquired within a short period upon comparatively small amounts of capital.

Situate in various districts, possessing more than average chances of success, practically managed, economically worked, and in a forward state of development, are the following progressive mines:—Wheal Edward, consisting of 4096 shares, marketable at 8 to 8½, with considerable reserves, and a lode in the shaft worth upwards of 100l. per fm. North Dorcas, 2000 shares, marketable at 2½ to 2¾; machinery erected, with several points all but realised, and traversed by the cross-course which rendered the mines in Gwennap so very productive and profitable. East Alfred Consols, with a large deposit of ore, passed over at the adit level. Pendennis and North Levant, in St. Just; with Great Wheal Busy, Kelly Bray, Margery, West Alfred Consols, Tehidy, Cupid, and South Gorland. In the selection of the foregoing progressive mines, we have been actuated by no unfriendly motives towards others not enumerated, but feeling convinced that they possess all the elements essential to success, and are selling at prices absurdly low in comparison with their intrinsic merits, we cannot err in directing the attention of our readers to them as desirable mediums of investment at ruling prices. We will remark, however, that it is useless to form companies to mine, unless shafts be sunk and levels driven to open out and develop sections of lodes; mineral is rarely found at surface, therefore it is essential that depth be attained to ensure success. Shallow operations may exhibit favourable indications, but wealth is only attained through earnest and practical working below. For safe returns of 10 to 12 per cent. annually, involving little risk, and slight range for speculation, we single out South Caradon, Basset, South Frances, West Wheal Seton, Great South Tolgus, and Par Consols. Lastly, we refer to Dolcoath, which at a depth of above 300 fathoms from surface has discovered a deposit of tin ores exceeding a million sterling, that can be returned at immense profits, if present value of tin be maintained. The bottom of Stray Park Mine is equally rich, and the shareholders are now erecting machinery to pump the water out; yet the entire property commands a market value of 4000l. only. So much for public credulity and sage discrimination!

* * TAPPING'S PRIZE ESSAY ON THE COST-BEER SYSTEM, enlarged and augmented, with Notes and an Appendix, can be had at the MINING JOURNAL OFFICE, 36, Fleet-street.—Price 5s.

BRITISH MINES.

EAST PROVIDENCE.—W. Hollow, T. Uren, Ag. 31: During the past fortnight and since our last report, we have made a fine discovery in Wheat Mount adit, on the Comfort lode; this end is driving south, by four men, at 41. per fm.; the lode is average 12 in. wide, worth 207. per fm.; it has been worth much more, but at present is a little smaller, we expect it will open again shortly. We shall commence on Monday clearing up and repairing an old shaft to ventilate the end, and for discharge of stuff with greater dispatch. When this work is accomplished, and should the lode

11. At Wheel Metal, the slopes were producing a large quantity of tin. On the whole, the company's property never presented such prospects for ultimate success as at the present time.

SWYDYS PARK CONSOLS.—H. Rawson, Sept. 3: In driving the Cross Meadow level we have driven through the heading of the black shale lode and leading a string of lead 3 in. wide in the rough. Our most important point at present is to push on the driving and intersect the heading of the Cross lode, upon which we will then close.

this week. We have not taken down any lode in the 70 and north for the week, shall next week, when I shall write you at once. If we should break it down one week it would be a great hindrance to us, the lode being large and strong, and good harder for driving. By fair play we ought to take it down but once a month, intend to twice. I am expecting to have a good taking down of ore.

QUEEN OF DART.—P. Hawke, Sept. 1: We have reached the south wall of lode in cross-cutting north in the 30 ft. level, and as far east has been cut into

found to contain asphalt, spar, spots of mudstone, and copper ore; we shall pay every attention to ascertain as soon as possible the real width and character throughout. There is no change to notice in the 20 east since last reported; I find the ground to be hard and spare for driving, in consequence of which no lode has been taken down in the past week. The prospects of the lode in the 30 are not so glowing as when last reported; the yield at present is about 3½ or 4 tons of copper ore per fm. When we reach the north wall, in cutting through the lode in the 30 I shall with pleasure communicate to you the results.

RIVER TAMAR COPPER (Limited).—J. Cook, Sept. 1: The present prospects of the mine are highly encouraging. The lode in the 30, which is the deepest level, presents a much better appearance than it does in the upper levels; it is about 2 feet wide, containing rich grey copper ore, and has all the usual indications of a highly productive copper lode. The sinking of the engine-shaft is being pushed on by every means in our power; we purpose sinking this shaft to the depth required for a 100 ft. level, where we expect it will intersect the lode, and I have the greatest confidence that the result will be satisfactory to the shareholders. There are several very promising lodes in this set, but none of them yet tried to a sufficient depth. The machinery and buildings are of the best description, and are ample for the present prosecution of the mine.

ROSEWALL HILL AND RANSOM UNITED.—P. Rose, Sept. 2: Since I wrote you on Aug. 26 we have cleared about 30 fms. of adit; we have got up the shaft; opened Town-shaft; cut down 6 feet at engine-shaft; taken out ground for foundation of boiler-house, and commenced building same; and many other things of no great bulk but equally important—too numerous to mention; all the work is being brought forward as expeditiously as possible. The engineers are actively engaged in putting in the engine; and we have made a contract with the masons for the building of the steam-whim house, which they will commence building in a day or two. We calculate on putting the engine to work in three weeks from this date.

SILVER BROOK.—Wm. Hosking, Sept. 3: There is no alteration in any part of the mine since my report for the general meeting.

STITHNEY WHEAL BULLER.—S. J. Reed, Aug. 29: The new south lode in the 60, east of cross-cut, is still looking very promising, about 1 foot wide, producing a little tin, but not enough to value—driven 4 feet. Schneider's lode, in the rise from the north engine-shaft, above the 60, has now greatly improved, worth at present 15½ per fm. The discovery of this lode at the point described is of great importance, as when this is communicated with the winze from the 60, and the lode maintain even its present value, we shall lay open some valuable tribute ground, and when the rise is through enable us to sink our north shaft, which will be done as fast as possible. Had we commenced it sooner, we should most certainly have carried it down to a wrong place, and lost much time and money. This lode in the 60, east of cross-cut, I am glad to say is improving, and I trust, judging from present indications, shortly to report more favourably; driven in the past week 4 ft. 6 in. This lode in the 60 west is about 2½ ft. wide, producing occasional good stones of tin—driven 5 ft. The ground in the cross-cut north and south in this level is more favourable for exploring, and the men are progressing as fast as possible. The stopes throughout the mine are producing stamping work of a fair quality. As ordered by you, we have anticipated the sale of tin monthly sale of tin by one week, which shortens the quantity sold to-day proportionately, and reduces it to, as nearly as I can judge, 1 ton of black tin.

SOUTH BOG.—S. Morris, Sept. 3: A slight accident occurred to our boiler to-day, which will make it necessary to have some repairs, by having a new plate put in; this, I am afraid, will delay our operations for a short time.

SOUTH CARR BREA.—T. Glanville, Sept. 3: At the flat-roof shaft, sinking below the 38 fm. level, the lode is 3 ft. wide, composed of spar, mudstone, and copper ore. In the 38 east the lode is 3 ft. wide, yielding stones of ore; in the 38 west the lode is 2 ft. wide, yielding 1 ton of ore per fm.

SOUTH CRENIVER.—J. Delbridge, E. Chegwain, Aug. 31: The tribute pitches are working, and yielding better quality ore: 94 tons are for sale on Thursday next, part of which is valued at upwards of 167 per ton. The 94 west is yielding 2 tons, and the rise 3 tons of copper ore per fm. The 84 looks kindly, and the winze communicated from the level above in tribute ground. The 74 west has yielded for the last 20 fms. driving 1½ ton per fm., and being 23 fms. beyond the 84 presents favourable indications for that and the level under. The 54 west has greatly improved in width and value, now yielding 1½ ton of ore per fm.; it is now under the ore ground, gone through in the level above (the 44), which is driven further west than any other in the set; the end is now worth 1½ ton of ore per fm.; it is good tribute ground for 25 fms. in length. In the 74 east the lode is 2 ft. wide, yielding some very good quality ore. The 54 east is near the elvan course, and is turning out some stones of ore. Altogether the general prospects continue to improve.

SOUTH CUDDA.—S. Truran, Sept. 1: We have put our engine to work, and it works beautifully. We are driving the north cross-cut as fast as possible, and have beautiful ground; we shall commence driving the south cross-cut in a few days. All operations are in good working order.

SOUTH DOLGOATH AND CARNARTHEN CONSOLS.—Wm. Roberts, Sept. 1: Nothing new to report this week.

SOUTH GARRAS.—J. Champion, J. B. Champion, Sept. 2: Lenderyn's engine-shaft is down 9½ fms. below the 40; the lode in the shaft is worth 15½ per fm. for lead ore. The east part of the lode in the 40 end north is still producing stones of ore, and from what we can see in stripping down some of the west part of this lode, we have every reason to believe that the lode standing west is as good as it is 1 fm. back, south from the present end, where it is worth from 30½ to 20½ per fm. The 40, driving south from engine-shaft, is worth about 20½ per fm. Tonkin's stopes in the back of the 40, south of engine-shaft, are worth about 20½ per fm. John's new stopes, in the back of the 40, north of engine-shaft, are worth about 10½ per fm. Sandy's new stopes, in the back of the 40, north of engine-shaft, north of winze, are worth about 10½ per fm. May's stopes, in the back of the 30, north of the engine-shaft, are worth about 9½ per fm.

ST. AUSTELL CONSOLS.—R. H. Williams, Aug. 30: The mine throughout is without any alteration to notice. At surface we have commenced erecting fly-wheel, and have all the frames, horses, stands, &c., of stamps on the mine; in a few days we shall commence fixing them. I expect the sales to be a success. Everything is going on satisfactorily, and up to this time I see no reason to be discouraged respecting the ultimate success of this undertaking. One or two important points are being nearly reached, and I am very sanguine about the result. Our copper ore sold for 9½ per ton—about three weeks back. I will send you the ore bill as soon as received—in actual three weeks time.

SWANFOLD.—J. Killo, Sept. 2: The lode in the 20 fm. level, in the western part of the mine, is 3 ft. wide, composed of spar, intermixed with kila, producing a little lead of good quality. The stopes in the back of this level, No. 1, west of engine-shaft, is worth 20½ per fm., and No. 2, west of footway-shaft, worth 9½ per fm. The stopes in the back of the 30—No. 1, east of engine-shaft, is worth 7½ per fm.; No. 2, east of footway-shaft, worth 4½ per fm.; and No. 3, east of new shaft, worth 3½ per fm. The stopes in the back of the 40, east of new shaft, worth 3½ per fm. The stopes in the back of the 60—No. 1, west of engine-shaft, worth 12½ per fathom; and No. 2, east of engine-shaft, worth 8½ per fm. The cross-cut south at this level is much the same as for some time past. We shipped for Mr. Bennison, on Monday last, 50 tons of lead, and shall ship 40 tons more before the end of this week. Within the last three months we have raised and sold upwards of 1000 tons, and I have no hesitation in saying that during the same period the discoveries made have been equal to that quality.

TAVY CONSOLS.—R. Williams, Sept. 3: The prospects of this mine have undergone no important change since my report for the general meeting. We commenced the sinking of the shaft below the 80 at the beginning of this week. I have received the assay of the sample of last parcels of ore—No. 1, 65 tons, 3½ per cent.; No. 2, 25 tons, 7½ per cent.

TRETOIL.—R. Rich, Sept. 2: The lode in the bottom is looking well, we have a prospect of a much larger batch of tin than for some months past. The eastern cross-cut is still letting out a large quantity of water. We have not yet reached the lode, a small branch of spar, containing lead, and spots of copper ore, have been met with lately. The same lode that produces the greatest quantity of copper ore in Par Consols is most productive for tin also further west.

TREWANE UNITED.—R. Reynolds, Sept. 1: Since last report a considerable improvement has taken place in the end driving north on the branches: the first branch we cut has formed a junction with the second, and I think may now with propriety be termed the north and south lodes wrought on in the old mine; it is 14 in. wide, letting out a plenty of water, and producing good saving work for silver-lead, and as far as we have seen, it has every appearance of a well defined lode, the present price for driving on it is 15½ per fm. There is another branch, containing lead, which will fall with the lode in a short distance driving, when a still further improvement may be expected. Every other branch of operation is progressing as fast as circumstances will admit of.

TREWETHA.—G. Richards, Wm. Rowe, Sept. 2: The lode in the 70, north from the engine-shaft, is producing some saving work. The south end is worth 4½ per fm. The 60 north is worth 4½ per fm. In the 80 north, we are opening a few feet westward, so as to reach the lode beyond the influence of the slide lately passed through. The stopes are without any important change.

UNITED MINES.—J. M. Champion, Sept. 2: The lode in the 36 is 1 ft. wide, and worth 14½ per fm. The pitch in the back of the 28, east from the engine-shaft, is worth 3½ per fm. The pitch in the back of the 28, west from the above pitch, is worth 3½ per fm. The pitch in the back of the 28, east from the engine-shaft, is worth 3½ per fm. The pitch in the back of the 28, west from the above pitch, is worth 3½ per fm. The pitch in the back of the 28, east from the engine-shaft, is worth 3½ per fm. The pitch in the back of the 28, west from the above pitch, is worth 3½ per fm.

VALE OF TOWY.—S. Thomas, T. Harvey, S. Harper, Sept. 1: We are sinking Clay's engine-shaft about 2 fms. per week under the 50. In the 50, south of said shaft, we find the lode heaved to the west, and somewhat disordered, yet producing 10 cwt. of lead per fathom. In the same level north the lode is 3 feet wide, producing 12 cwt. of lead per fathom. In the winze sinking under the 40 south the lode is 2 feet wide, producing 5 cwt. of lead per fathom. In the winze sinking in the same level north the lode is 3 feet wide, producing 4 cwt. of lead per fathom. In the 40 north the lode is 2 feet wide, producing a small quantity of lead. In the winze sinking under the 10, north of Bonville's shaft, the lode is 2 feet wide, producing 5 cwt. of lead per fathom.

WEST ALFRED CONSOLS.—S. Less, R. Stevens, Sept. 1: The ground in the 85, east of flat-roof shaft, is still very favourable for driving: we calculate we have about 7 fms. further to drive to reach the cross-course, which we hope to see by December setting. The lode in the 85 east is 2 ft. wide, of a very kindly appearance, and the ground more favourable for driving; the lode in the west end, in this level, is 3 feet wide, composed of spar and mudstone. The lode in the 75 west is 1½ ft. wide, producing about ½ ton of ore per fm. The lode in the 65, west of No. 1 winze, is 2 ft. wide, composed of lead, mudstone, and stones of lead; the lode in the winze sinking below this level is large and promising, and we hope we shall communicate with the 75 by the end of the present week; the stopes in the back and bottom of this level, set on tribute last setting day, are looking well, and the men are getting good wages. No lode taken down in the 85, west of engine-shaft, since our last report. We have a pair of men stopping the bottom of the 75, east of flat-roof shaft, preparatory to our sinking a winze to communicate with the rise in back of the 85, which is worth 12½ per fm.

WEST BASSET.—W. Roberts, Sept. 1: On the engine lode, in the 65, west of Ferry's shaft, the lode is 4 feet wide, producing 4 tons of ore per fm. In the 52 west the lode continues 6 feet wide, worth 3 tons per fm. The lode in the 42 west is 3 ft. wide, kindly black stones of ore. In the 31 east, on the counter, the lode is 3 ft. wide, producing 1½ ton of ore per fm.

WEST CLINNIS AND WHEAL BEGENT.—J. Webb, Sept. 2: The water is drained to the 40, but we find that level broken down very much, and have a pretty deal of clearing and repairing to put it in good order to get much ore from that point. We are opening out good ore ground at the 30 on Bell's lode. The tributaries are working

with good spirit, and many of the parties are getting good wages. After the various shafts are cleared and secured we shall set several additional pitches. We calculate sampling a parcel of copper ore in about a fortnight.

WEST NANT-Y-MWYN.—J. Thomas, Sept. 1: The men in the cross-cut have cut through the footwall of the lode into a fine blue black, mixed with white prisms and mudstone, and some lead, but not to value for lead. I believe that the best part of the lode is near the hanging wall, the same as it is in the river. I shall be able to say more about it in a few days, after the men have cut through it to the hanging wall, which work is very troublesome to do with the large stream of water which is bursting out from the lode, which is a very good sign. The other men are timbering an old drift, which has been driven from the cross-cut in the former times. I hope to find out in a few days where the old men have raised all their ore from.

WEST SHARP TOR.—J. Richards, Aug. 31: There is no change of importance since my last report.

WHEAL ADAMS.—J. Hodge, Aug. 31: I have carefully inspected the above mine, and found it adjoining, and bounded on the south side by, the Exmouth Consols Mine, which is now wrought on the course of some of the lodes of Wheal Adams. I presume I need not go into detail about the surrounding mines, as no doubt you are already acquainted with their position and merits. Wheal Adams has been worked by former companies to a considerable extent, ample proof being shown at surface of this fact. There are now three engine-hoists on the mine, all in good repair, and other necessary buildings, all of which will be available, and very useful to the further development of the mine. Two engine-shafts have been sunk, one on the south part of the mine 35 fms. deep, the other about the centre of the mine 40 fathoms deep; these shafts are of great value to the present company to facilitate the future working in depth. Referring to my underground inspection of the mine, and observation of the several lodes, I beg to remark that there is a large flooken channel or course direct through the set 100 fms. wide, in which there are several lodes and veins or branches, and are denominated as the Jack lode, copper lode, lead lode, Hampson's lode or branch, Prince's lode or branch, the great quartz lode; there are other lodes or branches in this great channel as yet to be named. The present operations of the mine are confined to the 8 and the 18, by clearing the levels south, sinking a winze, and raising against the same for ventilation, and driving cross-cuts to lay open other side lodes. A winze is now in course of sinking from the 8 to the 18, on the course of the lode, and is now 5 fms. deep; the lode varies in size from 3 to 6 feet, the whole being saving work for lead, copper, and Jack ore. In the 18, about 3 fms. from the pit, there is a leading branch of solid lead ore, 2 inches thick; a rise is now in course of being brought up from the 18 to this winze. In this part of the mine I believe you have hundreds of fathoms of profitable ground already discovered unwrought; there is space for the discovery of hundreds of fathoms more of equal value in the north, under the 8, and under and above the same level, on other lodes, which have yet only been partially operated on. In or near the winze the Jack and lead lodes appear very near each other; the Jack lode has been taken away, while the lead lode is all left standing, and in the very bottom of the winze the lodes appear further apart; the Jack lode is gone off in an easterly direction, which leads me to believe that the lead lode is unwrought both north and south of this point, a confirmation of which is to be seen in the 18; as soon as this part of the mine is ventilated large quantities of the three before-mentioned minerals can be raised at very little cost. The 8 has been cleared and well secured with timber 40 fms. south, and about 6 fms. remain unsecured before it reaches the air-shaft, near the smith's shop; from this shaft a cross-cut is driven west by a former company, it was left well secured and in good repair by them, and may be expected to be found the same. Men who formerly worked in the mine, and at this point, positively assert that at a few fathoms west of this shaft a large course of ore was discovered, that many tons were taken away, and that large quantities are left there unwrought; the truth of this will be proved in the course of a week or two, as by that time I expect the level will be communicated with the shaft. I will here observe that you have several east and west lodes through your set, and when they come in contact or intersect the other lodes, almost a certainty of great produce of copper lead, and Jack, will be the result. The burrows and halvans in the mine left by former companies deserve great attention; I took small quantities from various parts of the burrows, and brained them down small, and found them good work for lead ore. Many portions of these burrows will well pay for dressing at the present price of lead, therefore I recommend that a stream of water be brought to the mine for dressing purposes, and that it be carried on a good scale. I learn that the copper ore produced by former companies was rich, making an average produce of 4½ per cent., and that it was principally black ore, sold in the rough state, securing scarcely any expense of dressing. I found a pile on the mine, about 10 tons, prepared in this way; being now just ready for market, you will soon ascertain its real value. The rich lode recently cut at Exmouth Consols Mine, and which passed for a considerable length through the southernmost part of Wheal Adams set, is a feature of very great encouragement. In conclusion, I beg to observe that the present course of operations in the mine are satisfactory; that I found the set and mine far more favourable than I anticipated; that before this reaches you the anticipated communication will be made, and you will soon be in a position to make profitable returns; also, should you require any further information from me on this desirable project, I shall be happy to render it.

WHEAL AGAR.—W. Roberts, Sept. 1: In the 60, west of engine-shaft, the lode is 1½ ft. wide, producing 1 ton of ore per fm. In the 50 east the lode is 2 feet wide, and the 40, east of the 50, is 2 ft. wide, producing 2 tons per fathom. At the eastern shaft the lode is not looking so well as last reported.

WHEAL ARTHUR.—T. Carpenter, Aug. 31: Old lode: The lode in the 50 west below adit is 3 feet wide, composed of spar, capel, and spots of copper ore. To ground in the 40 cross-cut south is much the same as last reported; I hope we shall soon have the lode. The copper pitches are not quite so good. The lode in Palmer's tin stopes is yielding moderate stamps' work. We weighed at Calstock Quay, on the 28th inst., July ore, 75 tons 5 cwt.

WHEAL EDWARD.—M. H. East, Aug. 29: North lode: In the 74 east 64 west, and 34 west, we are driving by the side of the lode, there is no material change in the character of the ground at either point. The 64 east is driven 7 fms. east of the cross-course, and the lode has turned out well for the whole distance of driving. The end driving near the sink below the 45 in Wheal Arthur, and in reality below the 34 in this mine, is of the value of the lode, it is most advisable to carry a rise and communicate to that point, as it is near the boundary line; therefore the driving of this point is suspended. The lode in the 41 west, is about 3 ft. wide, yielding stones of ore; the ground is favourable for driving. The stopes and pitches at the different points of operation are yielding a fair supply of ore.—South lode: In stripping down the lode in the engine-shaft, referred to in my last report, a very great improvement has taken place. The lode, for about 11 ft. deep by 12 ft. long, has turned out 21 tons of good quality yellow copper ore, which was sampled on Friday, the 24th inst.; the value of the lode in the shaft is not less than 1200 per fm. This is certainly an improvement of no small magnitude, as the lode is large and strong, and strongly indicates greater value in depth. I will write you again respecting this point when the stripping down of the lode is completed. July ore weighed off on Calstock Quay on the 28th inst., 206 tons 7 cwt. 2 qrs., and we sampled 185 tons, computed, for August, which, on the average, is of much better quality than the last sold.

Sept. 2: Since my last report we have communicated the rise referred to in the back of the east.—North lode: The lode at this point is worth fully 25 per fm.; in driving there, as shown on the plan, I consider it most advisable to carry a rise and communicate to that point, as it is near the boundary line; therefore the driving of this point is suspended. The lode in the 41 west, is about 3 ft. wide, yielding stones of ore; the ground is favourable for driving. The stopes and pitches at the different points of operation are yielding a fair supply of ore.—South lode: In stripping down the lode in the engine-shaft, referred to in my last report, a very great improvement has taken place. The lode, for about 11 ft. deep by 12 ft. long, has turned out 21 tons of good quality yellow copper ore, which was sampled on Friday, the 24th inst.; the value of the lode in the shaft is not less than 1200 per fm. This is certainly an improvement of no small magnitude, as the lode is large and strong, and strongly indicates greater value in depth. I will write you again respecting this point when the stripping down of the lode is completed. July ore weighed off on Calstock Quay on the 28th inst., 206 tons 7 cwt. 2 qrs., and we sampled 185 tons, computed, for August, which, on the average, is of much better quality than the last sold.

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[FROM A CORRESPONDENT.]

N. Y. Herald. Total 78,350 miles.

HOLYHEAD HARBOUR AND BREAKWATER.—A grand operation took place at Holyhead on Wednesday, in presence of the Lords Commissioners of the Admiralty and Mr. Hawshaw, the Principal Engineer. Height of quarry, 25, 172 ft.; length of ditto, 150 ft.; grip, 60 ft.; charge of powder, 11,000 lb.; powder, galvanic battery, 40 cells; result of operation, 20,000 tons of the hardest quarry rock, engineering operations conducted by Mr. Charles Rigby, in person, assisted by Dr. Reithelm, the resident engineer of the contractors.

METAL MARKET. *London, September 4, 1857.*

considerable request, at 120 to 125, and holders firm; Kitty (Lelant), 20 to 23½, still buyers; East Basset, owing to the improvement in the mine, have been in request, and the price advanced from 40 to 49, 50; Gravel, South Tolgus, 16½ to 17; Mary Ann, 47 to 48; Wheel Margery, 12

to Woods and Forests towards educational fund, 304.; lead ore raised, 2012 100

THE PROGRESS OF MINING IN 1856.

BRING THE THIRTEENTH ANNUAL REVIEW.

By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843), *Gleanings among Mines and Minerals*, &c.

The THIRTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in a SUPPLEMENTAL SHEET to the MINING JOURNAL of Jan. 3, 1857.

A FEW COPIES OF THE REVIEW OF 1855, containing Statistics of the Metal Trade, the Dividends and Per centage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 200 Mines. Also, a FEW COPIES OF THE REVIEW OF 1852, 1853, and 1854, MAY BE HAD on application at Messrs. WATSON AND CUELL'S Mining Offices, 1, St. Michael's-alley, Cornhill, London.

Also, STATISTICS OF THE MINING INTEREST. By W. H. CUELL.

WATSON AND CUELL'S MINING CIRCULAR, published every Thursday morning, price 6s. or £1 1s. per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recommendations and Advice upon all subjects connected with Mining, and interesting to investors and speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. Watson, F.G.S., and published by WATSON AND CUELL, 1, St. Michael's-alley, Cornhill.

N.B. Looking at the causes for the present depression in mining shares, Messrs. WATSON AND CUELL have made a selection of a few dividend and progressive mines to pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

INVESTMENTS IN BRITISH MINES.

Mr. MURCHISON'S REVIEW OF BRITISH MINING for the QUARTER ENDING 30th June, 1857, with Particulars of the Position and Prospects of the principal Dividend and Progressive Mines, Tables of the Dividends paid in the past Quarter, and in the Years 1855 and 1856, and a MAP of the GREAT WHEAL VOR and LELANT MINING DISTRICTS, &c., is now READY, price 1s.; at Mr. MURCHISON'S offices, 117, Bishopsgate-street Within, London.

Reliable information and advice will at any time be given on application. Also, COPIES OF "BRITISH MINES CONSIDERED AS AN INVESTMENT." By J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 3s. 6d., by post 4s. See advertisement in another column.

CORNISH AND DEVON MINING ENTERPRISE.

By R. TARDINICK, Mining Sharebroker, Gresham House, Old Broad-street, London.

Facts and Statistics recorded, Synopsis of Dividend Mines, Plan of the Buller and Bassett District, a Clear and Succinct Description of the chief Mines. All interested in such investments should possess a copy. Price 5s. bound.

ST. IVES, LELANT, AND TOWEDACK MINING DISTRICT.

—Mr. TREWERKE begs to inform his friends and the public generally that his MAP of the above DISTRICT, and a STATISTICAL ACCOUNT thereof for the past 30 years, is NOW READY, and will immediately be sent to any party who may require a copy, on the receipt of 14 postage stamps.

Dated 25th Sept., 1857.

HOPKINSON'S PLANS FOR VENTILATION OF COLLIERIES.

showing separated Winds, that will prevent all Serious Explosions in Coal Mines. On the same sheet, the Works and Ventilation of the Lund Hill Colliery are represented. Price 3s.

May be had at the Mining Journal office, 25, Fleet-street, London.

A notice of Mr. Hopkinson's invention appeared in the Mining Journal of 20th June.

PATENTS, SEVERAL THOUSAND: A CLASSIFIED CATALOGUE OF SUBJECTS; with "ADVICE TO INVENTORS ON PATENTS, CAPITAL, AND CONTRACTS."

H. DRACK, C.E., Patent Agency Office (Established 20 years), 32, Moorgate-street, City.

COMPULSORY REGISTRATION OF JOINT-STOCK COMPANIES.

Now ready, price 4s., the Second Edition of

TAPPING'S EXPOSITION OF THE JOINT-STOCK COMPANIES ACTS OF 1856 AND 1857.

Designed as a PRACTICAL GUIDE for the Promoters, Directors, Shareholders, Solicitors, Secretaries, Officers, and Creditors of all kinds of Joint-Stock Companies. Containing a Clear Exposition of the recently passed JOINT-STOCK COMPANIES ACT, 1857.

Also, full Directions for the Formation, Registration, and Incorporation of Joint-Stock Companies, together with the Authorised Regulations for Management of the same, and all necessary forms.

By TAPING, Esq., Barrister-at-Law.

Author of the "Read in Prize Essay on the Cost-Book System," &c., &c. London: Mining Journal office, 25, Fleet-street; and all booksellers.

Notices to Correspondents.

Many inconveniences having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

VENTILATION OF COLLIERIES.

Many persons have communicated with you upon this subject, but I invariably notice that those loudest in their condemnation of the present system are most silent with reference to the mode which should be adopted. I do not mean to say that no new inventions have been made known, but they have nearly all been by theorists, many of whom assert that they are entirely unacquainted with the modes at present in use. If a good system of ventilation be a desideratum, the best course to adopt would be to obtain from practical managers in the several colliery districts an account of the way they now produce the current of air through the workings, being connected with a concern where there is no defect which they have observed. Were these managers to furnish such information for publication in your Journal, I am convinced that good would result, as both theorists and practicals would know better what was required. At present the theorists have comparatively nothing to guide them, and the practicals are in a little better position, since it cannot be denied that nearly all of them are very badly informed upon everything out of their own district.—R. T.

VENTILATION OF COAL MINES.

Some time since you referred to Mr. Austin's blocks as likely to be of use in the construction of shafts in coal mines; but I do not see that any attempt has been made to give the proposition a practical trial. Now, as there can be no doubt that their use would materially assist the ventilation of a mine, I think they are worthy of a trial; and if it be the desire of the inventor to have them practically tested, the best course he could adopt would be to show, through your Journal, that the cost would not be an objection. He must not, however, try to revolutionise the working of coal mines "at one fell swoop," since he must recollect that the question of having the upcast and downcast air in one shaft is one on which few would agree with him. Let him endeavour to perfect one invention at a time, instead of having too many irons in the fire, and he will succeed much better.—J. W., City, Sept. 2.

MANUFACTURE OF STEEL.

A short time since you noticed the invention of M. Pavvert for manufacturing cast-steel by a new and cheaper process than heretofore, and you then promised a more detailed account of the process immediately. As I have seen no further mention of the matter in your Journal, I suppose it has been found that in practice the wished-for result could not be obtained, and that, like the Bessemer process, although very beautiful in theory and successful in certain isolated instances, it is useless for any general purpose. If M. Pavvert has really been able to accomplish what one half of what he professed, he will no doubt speedily realise a fortune; but I fear he, like too many of his countrymen, has been too sanguine, and that he will, therefore, have to admit his failure. As you have never published the specification of his patent, nor any particulars of the process he adopts, I think he might, at least, make that known, as others might then make further researches in the same direction.—P. F., Sept. 4.

STEAM-HAMMERS.

A few years since there was a perfect mania for steam-hammers, which were held to be applicable to ore crushing and almost everything else, yet lately I hear nothing about them. Being connected with a concern where there is ample water power, I have been thinking that such a hammer as Morrison's could be advantageously used without steam. The power of the water-wheel is considerably more than required, and the surplus could be advantageously used in raising the hammer. The piston should be made air-tight, and the upper end of the cylinder open to the air. Then the hammer in rising would create a vacuum in the cylinder, and upon the catch being released, the hammer would descend with the full force of 15 lbs. on the square inch. The adoption of such a scheme would be an immense saving in most mines, and would seldom cause much additional expense. It would do for forging, breaking large stones of ore, and various other purposes.—J. B., Ramsey, Sept. 1.

STEAM TRAIN FOR RIVERS.

I was much surprised to read your account of Mr. John Bourne's invention for navigating rivers, as I am sure both Mr. Bourne and most other persons must know that there is very little novelty in his proposition, unless they differ from the description given in your last Journal. The use of jointed boats, each portion having one end convex and the other concave, is certainly not new, and the paddles, screw, and centrifugal pump have all been proposed in your Journal, the latter by Gwynne, not very long since. As, however, Mr. Bourne is an experienced man in his profession, some particulars as to where his improvements have been introduced would be interesting, and would no doubt aid him in attracting the attention of the public to his scheme, and in securing its adoption, if found practicable.—C. E.

UNIVERSITY DEGREES—NON-RESIDENT STUDENTS.

Observing a sweeping assertion in your last Journal, relating to the German degree of Ph.D., I beg to state that there are exceptions, and a foreigner might, with as much grace, make a similar assertion with regard to British Universities, because certain Scotch bodies were formerly said to be lax in granting medical diplomas. You surely will not send an unqualified subject to Berlin, Leipzig, Göttingen, or Bonn with 18s. in his pocket, and have him returned with a literary stamp upon him. I know some smaller universities yield undue facilities, but when the degree of M.A. is coupled with that of Ph.D., Leipzig, for one, is as absolutely exclusive as our London University graduates would have the "People's College" at this present moment. The question should be—Does a man possess a certain amount of knowledge? Not—Where did he obtain that knowledge; the path is open to all, and more credit is due to the toiling student who has no *Alma Mater* to guide his steps. The following extract from a letter written to me by the Proconcurator of Leipzig University, in reply to my application for a friend and sound scholar, will explain to what I allude. After referring to the Latin dissertations and testimonials of high order from university men, he proceeds—"Amicum Tuum Universitatem adscriptum fuisse, non invenit in suis archivis: nec illi ut scilicet inde critium esset quoniam difficultate, quoniam ordinis nostri statuta caute ut, acquiri ad magistri artium honorem promoveatur, qui academicis lectionibus non interfuit. Raro lingue ut hoc Amico Tuo significavi, et cum nomine meo moneas, ut quomodo hoc adhibet, me pluribus certiorum faciat." In conclusion, to those who wish to know more of the matter, I would beg to recommend the perusal of Percy's "German University Education," pp. 49-51, published by Longman, Brown, and Co., 1845.

RATINGS OF MINES.—The report of the committee has been some time before the public, and I have not as yet heard that the "Miners' Committee," who were appointed to watch over our interests, have made any movement. A correspondent some time since, in answer to a communication I addressed, stated that they were thinking; probably they will be good enough to inform the subscribers to the fund the result of their deliberations. If they intend to oppose the bill which will be brought in, it is their duty to do so in the ensuing recess; the mining community, now that matters have reached to a certain point, expect somewhat more activity than these gentlemen have hitherto displayed, or that they will resign their trust.—CAPEX.

COLLIERIES INSPECTION—ANNUAL REPORTS.—Those desirous of procuring the official reports of the Government Inspectors for 1856, to which we refer in another column, can have them forwarded from our office by sending a Post-office order for 3s. 6d.

NORTH FRANCER.—"A Shareholder" (Bedruth).—It is not always convenient for shareholders to attend meetings, and not at all unusual to endeavour to obtain information, which is generally afforded when solicited in a courteous manner. Though "C. L." might be anxious for information, and it may be, dissatisfied from what he had heard, it does not follow that he desires to dispose of his interest.

"Pagarita."—We have a letter for this advertiser, which has been returned from the address given, marked "gone away."

WHEAL ZION.—When this mine was first inaugurated it was with a blessing, and from our religious title, one would imagine that at our meetings nothing was breathed but "peace and good will to all men." Sorry am I to say, we are not a cage of doves, but rather a congregation of wild beasts, inasmuch as regards the meeting and growing which is exhibited at every meeting, and the late Mr. Wombwell could not exhibit in his menagerie more quarrelsome and diversified set than the blessed Zion shareholders. We were told there were arrears of call; many of these have been paid, and when Mr. Bryant offered to pay his, and actually drew a cheque for the purpose, Mr. Maynard demurred to his vote being received, as he had not tendered the money previous to the meeting; at the same time, however, he had no objection to the money. He stated Mr. Stubbs was absent on business with the Kettering Bank, and it was his intention to oppose everything and everybody. From the reports of Mr. Nicholas Emsor and Captain Phillips, it appears that we have a good mine, and that it will, when properly developed, afford adequate returns. I would, however, ask the shareholders whether these interminable quarrels must not have a deteriorating influence on the shares in the market? Wheal Zion has now become a bye-word and reproach; instead of being a haven for the blessed, it appears to be a spot where there is nothing but wailing and gnashing of teeth, and if we proceed in the manner we have hitherto done, our course must be to "Hades."

—CLERICUS: Old Jewry, Sept. 2.

THE COPPER TRADE.—"A. F." (Southampton).—The annual statistics appeared in the Journal of July 15, containing all particulars of the quantity of copper ore sold from each mine, British and Foreign, from June 30, 1856, to June 30, 1857.

COLLA MINING COMPANY.—The protest against the purchase of the new engine has not been read at any of the public meetings, the committee not having produced any evidence. The name referred to was in connection with the committee, but objection was made to it. It is not our wish to introduce needless names of any private persons. With the merits of the case we have nothing to do, and whatever disputes or differences may arise, we think the most prudent course for all parties would be to arrange them amicably.

NORTH BRITISH AUSTRALIAN COMPANY.—"J." (Glasgow).—The delay in advertising the removal of the offices arises from the directors wishing to register the company with limited liability.

AUSTRALIAN CONSOLS MINING COMPANY.—The scrip of this precious concoction has continued to dwindle in value at the rate of about 2d. a week per share ever since the last advertisement published in the Times by the influential board of directors, and within the last week 250 shares have been sold at 1s. 4d. each. Has the Chairman returned from Australia? Is a large balance to be allowed to remain unaccounted for? My feeling at the end of a protracted agitation, maintained at a vast expense, exclusively on principles, is one of profound contempt for the dupes.

Nevertheless, I will not let this bubble go quietly to the tomb of the Capulets, and with it my 650 shares, although Mr. Cole Chish will wish to do so with his 1800. I, therefore, give notice of my intention to call a meeting at one of the coffee-houses in the City within a few weeks, provided a few join me in defraying the expenses of the room and advertisement, and communicate with me, directed Brighton.—H. GURDALL: Sept. 3.

WEST MARLBOROUGH MINING COMPANY.—All outstanding scripholders had better avail themselves of an opportunity now offering, by which they will most likely within a month, on sending their names and addresses to Mr. N. Lando, of 17, King's Arms-yard, London, with the number of shares held by them, at a return of 5s. 6d. each net. I have employed him, as well as by recently recovered that sum for a friend of mine, and my only motive of writing publicly to my attempt is that success is more probable with a larger and combined number than with a single isolated case. It is, however, necessary to apply before the 15th inst. This undertaking is a great desideratum to both Mr. Ambrose Moore and John Masterman, jun.—QUOD DIFTERET, NON APPERTUR: Sept. 3.

CORRE COPPER MINING COMPANY.—"A. L." (Warwick).—The price of shares in the market at the close of the year 1856 was 59s. per share; Aug. 13 they fell to 41s., through the unfavourable report at the last half-yearly meeting, which stated that the produce of 1856 was 2913 tons less than the preceding year, and the ore imported were not of so good quality, averaging only 15s.; consequently the dividend declared was only 11s. per share, instead of 31s. The price of shares, however, has steadily progressed during the last fortnight, and on Saturday last they reached 49s.

MR. COMMISSIONER FOMBLANQUE ON MINING.—I was much struck, on perusing the Times of Thursday, at a sweeping remark of Mr. Commissioner Fomblanque, that "a man who embarked anything in a theatre or a mine was sure to be utterly ruined." I will not discuss the absurdity of such a remark with you, as our opinions agree; but with the unthinking part of the community I venture to fear that such an off-hand assertion, from such authority, might have some weight. It was a very ignorant remark, as all dividend recipients will admit; and I should infer that Mr. Commissioner Fomblanque (who is known to be fond of a spec.) has been bitten by some worthless mine.—D. M.: Sept. 3.

ST. JOHN DEL REY MINING COMPANY.—"G. H." (Leeds).—The total cost for April was £1194. 11s. 11d.—showing an actual loss on the month's working of 553s. 4s. 11d.

CARNEVAS MINE.—Pray permit me to say that I made my communication relative to Carnevas in the spirit of truth and fairness, without "hostility," interest, prejudice, or malice. I again repeat that, besides "the island or steel-grained lode," there are four other lodes in Carnevas. Why did not "Miner" notice the several lodes in his first communication? "Miner" is quite wrong in attributing my remarks to "a desire to reconcile the company with the bargain I once made with them." I never made, nor attempted to make, a bargain with any company; but, misled by the promises of an ample working capital by an individual, I was induced to assign my contract for the sett, for a money payment of 1500. (out of which I had to repay considerable expenses), and a portion of the benefit of his arrangement. The company after a time being formed, he purchased of me my shares, sold them for ready money, gave me his bills for the agreed amount; unexpected pressure came upon him, he became bankrupt, and my bills are unpaid.—G. ASBURY.

ANGLO-CALIFORNIA GOLD MINING COMPANY.—I am pleased to see that the shareholders of this company are disposed to resist the payment of the call, either to the liquidators or directors. There are other lawyers to be found as well as Messrs. Nicol and Shann. The threat of litigation, no doubt, comes from interested quarters. The question would long since have been settled had we any energetic men at the head of affairs. Had Sir Henry Huntley been recalled when he incurred, on his own responsibility, the first debt, the directors would have done their duty, rendered him powerless for further mischief, and the property might yet be in our possession.—P. F.: Warwick.

THE CHANCELLORVILLE GOLD WORKS.—I had imagined that the company had an inexhaustible supply of auriferous quartz from their own works, and that as well they could crush any quantity that might be forwarded to them; yet I have not for the last few weeks seen any results published in your Journal, although I thought the machinery in the works was sufficient to crush 100 tons of quartz daily. I am visiting Dolgelly; this ground has been before inspected by Mr. Josiah Harris. Your information further states, that if the samples of auriferous ore there obtained exist in sufficient quantities to pay, Mr. Rogers will likewise erect works on a scale commensurate with the wants of the different mines in the district. Before this takes place, we may hope to have some results of the trials of the North Wales ores at Frodham; and when these are tested, the merits of the two inventions can be accurately judged. In the meanwhile, many of the shareholders are waiting with great anxiety the further results of Mr. Harris's trials—experiments or positive working.—ELECTRUM: Cornwall.

AUSTRIAN MINING COMPANY.—I perceive, by a communication in your City Article, that the interest to the time assigned to the liquidators of the company, in every transaction the company has had with the agent of Queen Christina, he has always endeavoured to find a loop-hole whereby he could evade, in some way, his engagements, and thereby gain time; the liquidators, when they came to terms with him, were aware of this. I would ask these gentlemen if they hold no tangible securities, and whether these are not liable to forfeiture? I am the last to wish to have recourse to litigation, but I do not trust our representatives have not depended so much on supposed good faith as to leave themselves entirely unarmed.—M. F.

BRITISH AUSTRALIAN GOLD MINING COMPANY.—A report from this association was published early in the spring. The offices are in King's Arms-yard, and Mr. H. F. Ward is the secretary. For considerable periods no meetings have been held. The association had previously offices in Moorgate-street; Mr. Drake, formerly of the Royal Navy, was the secretary.

QUARTZ REDUCTION COMPANY.—Our correspondent at Torrington has probably overlooked the answer to his previous communication, which was duly noticed shortly after it was forwarded. Last winter the water got into several of the smaller shafts in the workings; this was immediately after the wet season had commenced, and there was a great difficulty in getting it out. Means have, however, been taken to obviate this difficulty, and it is now anticipated that operations will be carried on continuously. During the last winter, and under the most unfavourable circumstances, but few liabilities have been incurred, and those of the most trifling nature. The working expenses have been paid. The Americans bringing quartz to be reduced state the mill is of great efficacy, and the produce they have obtained from it has been larger than that from any other stamp in the neighbourhood. No new works will be attempted; such a question will not, we understand, be mooted until a dividend is declared—this many of those acquainted with California state is probable soon to take place. The directors do not wish to put forward any statements until in a position to verify them by actual results.

THE PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.—There have been several recent arrivals from Melbourne, yet it is now many weeks since any information was vouchsafed to the shareholders with respect to the doings of our managing director in Australia, and the progress he is making in erecting, according to contract, a quartz crushing establishment at Glances. Our managing director at Melbourne rejoices in a large salary, a residence, &c., and we have certainly a right to know what he is doing.—CHRIS. RICHARDSON.

WEST MARLBOROUGH COMPANY.—The unfortunate shareholders of this company are now apparently in a worse position than they were some three years since. Out of the 18,000, one gentleman has managed to get returned to him the sum of about 18,000; this he refuses to divide among the unfortunate proprietors, *pro rata* or otherwise. A short period since, when told that some of the shareholders would employ a solicitor, and commence legal proceedings, his reply was, "So will I, and pay him out of the company's funds; they will then have to pay costs on both sides." I have no hope of justice, but publicity may inform those who trusted in him what they have to expect.—A. BUTLER at FARMINGTON.

"In the Ticketing Paper of Aug. 6 two errors occurred. The ore purchased by Banket, should be 16077. 3s. 6d., should be 10577. 3s. 6d.; that by the Copper Miners, 14597. 3s. 6d., should be 14977. 3s. 6d."

GREAT POLSCOOTE MINE.—In reply to Mr. Martin's ill-considered communication, inserted in your last week's Journal, I have simply to state that Capt. Barratt's valuation, amounting to 50 tons of the ore made in July, 1856, since which period portions of the balance and claims have been returned, and credited to the company; and that the sum of 291. 13s. was for the residue, which amount was determined by a valuation made by Capt. Frax. Puckey and Capt. R. Hancock, men of eminent experience as miners.—W. C. FOWLER, Sec. of Capt. R.

RAILWAYS IN VICTORIA.—My attention has been directed to a letter written by the paid agent of the Geelong and Williamstown Railway Company, in which an attempt is made to impugn the authority of the Mining Journal on matters relating to the colony of Victoria. I beg to state, for your editorial satisfaction, that I consider your Journal remarkable for the accuracy of its information on subjects relating to that colony. I give my name, but not for publication.—London, Sept. 2.

"We reluctantly withhold the name of our experienced colonial correspondent, as its publicity would give additional weight and significance to the purport of the above letter. We have received numerous communications on this subject, which our want of space obliges us to withhold; many, however, are too personal for our columns.—Ed. M. J."

The letter of "W. W." (Liverpool), referring to some alleged transactions at Ballarat and Melbourne, requires confirmation: from the enquiries we have made, we do not feel justified in giving publicity to the statement, evidently incorrect in some of its particulars, and which may prove mainly to have its origin in idle rumour. The parties chiefly interested have not been communicated with on the subject.

PEDRA-AM-DREIA MINES.—We think further discussing the affairs of this mine can be attended by no useful result. Sufficient has already been published to show those in authority that there is room for improvement in the management, and we know enough of the ability and disposition of some connected to feel assured that where alterations can be effected to the advantage of the property every effort will be made in the proper direction. It will now be for the several shareholders either to attend the meetings, or be properly represented, to see that the concern is properly conducted. Of the result little doubt appears to be entertained.

DEAUFORISING ARGENTIFEROUS PYRITES.—The letter of Mr. F. S. Thomas shall appear in our next Journal.

THE MINING JOURNAL.

Railway and Commercial Gazette.

LONDON, SEPTEMBER 5, 1857.

In our last Journal we briefly alluded to the programme issued by the GOVERNMENT SCHOOL OF MINES for the session of 1857-8. We now revert to it. For a considerable period the want of a better education for miners had been felt, and although attempts had been made by individuals to remedy the defect, it was not until the year 1851 that the Government attempted to give a practical form and development of the course of instruction to be pursued. Great opposition was at first exhibited on the part of a considerable majority of the Cornish miners, who believed that theory was entirely to supersede practice, and the element of Germanism was to predominate. It cannot be denied that some prejudice yet exists, but this is becoming gradually lessened, and as the advantages of education become more diffused so, we trust, in a corresponding ratio they will be appreciated. Several of the students who have been trained at the Government School have already shown themselves to be practical men, and without wishing in any way to deteriorate from others, the two gentlemen who obtained the Duke of Cornwall's exhibitions in 1851-2 are deserving of honourable mention in our columns; these were Mr. HENRY FRANCIS BLANDFORD, of the Geological Survey of India, and adapter of a useful and practical treatise of *Scheerer on the Blow pipe*, and Mr. ROBERT HUNT, jun., of the Sydney Mint.

The metropolitan school has not been long enough in operation to produce as yet any great practical results, but the impulse it has given to the provincial academies has been felt and acknowledged, and each year we have no doubt the utility of these institutions will assume a greater significance. The practical miner will be guided by the light of science, and thereby be better enabled to pursue his difficult and arduous calling; while the student who has mastered the first scientific rules of mining will, when he is placed on a mine, be enabled to avail himself more readily of the practical knowledge of the operative, and each will be mutually enabled to compare notes, and benefit by the joint results of their experience.

A knowledge of mineralogy will enable the miner to economise, appreciate, and save the various ores which may be raised; and a more intimate acquaintance with metallurgy will teach the smelter how to separate the various products during the several reduction processes. Chemistry will show him how to economise his fuel, and the composition of the various gases which from time to time are occurring under combustion; while an acquaintance with physics as applied to mechanics will be found eminently useful to those employed either in the raising or the reduction of minerals. Natural history and geology will be found great aids, but as these are special branches we will not here further allude to them.

The teaching of the school is eminently practical. It was feared at first that it would be purely scientific, and hence much of the opposition engendered against it. In England we have the best practical miners. It was thought that these men were to be superseded. Such is not the case. Practice will always receive its due meed, and must be regarded. Facts are stubborn things, but when these arise—here we specially advert to changes in lodes, heaves, &c.—the aid of science may be called in to explain the cause of the occurrence.

Knowledge and practice will each have their claims; both will be considered, and when properly combined must be effective. That which of late years has been fraught with more evil to mining enterprise than any other calamity, has been the introduction of a set of pretenders, who, although they have not been able to strike a miner's blow, have called themselves miners. With the aid of a little smattering of mineralogy and geology, they have dubbed themselves scientific men, when probably their whole knowledge of mining has been gained on the "account day," while partaking of the hospitalities of the agent, and their geology and mineralogy from some obsolete work, quite out of date. These are the only persons who fear the diffusion of education. They are perfectly aware that by practical men at present their claims are ignored, their theories scouted, and their ideas condemned. The rising class will prove the shallowness of their attainments in science, and they must sink back to the mechanical trades from whence they have emerged.

The examination papers for the several sessions have always been drawn up with the greatest care. The questions propounded, though many of them are of a most difficult nature, are such (we especially allude to mining and metallurgy) that each student in his peculiar department should be enabled satisfactorily to answer. The lectures commence early in October. We shall attentively watch the progress of all the educational institutions connected with mining; they have a great task to achieve, and in their undertakings we wish them heartily "good speed."

If any proof of the estimation in which instruction such as is afforded at the Mining School, Truro, is held by the intelligent portion of mining captains were wanting, we think it is conclusively afforded in the truly man-like epistle addressed by Capt. VIVIAN, on his receiving a summons from the miners lately under his command, and published in *extenso* in our last Journal. After admonishing and exhorting them to good conduct, and pointing to examples of working men who, having received no more than village education, by assiduity and care are now filling the most responsible situations in mines at home and abroad; yet he advises them, in addition to their practical experience, by all means, if possible, to study and endeavour to acquire even the rudiments of such useful sciences. Evidence such as this, and from such a source, is a *cavea vocis* fact, better than a thousand suppositions. If mine captains generally would speak out as plainly and boldly as Capt. VIVIAN has done to his men, they would oppose themselves less to the charge of egotism and overbearing, which is frequently laid to their doors by persons who do not thoroughly know their peculiar characters, who erroneously suppose, by their pertinacious holding to the plans they find best adapted to their circumstances, resolutely refuse the advice and methods earnestly recommended to them; but such is not the case. In many instances, too many instances, the captains act by order of the committees, and can neither move hand or foot to improve, provided additional expenses be incurred. A long acquaintance with them confirms us in the opinion that they are a race more inclined against than sinning. There are other parts of Capt. VIVIAN's valuable letter relative to the tutwork and tribute systems of working (so often the subject of discussion in our columns, with so much ability on both sides), that we earnestly recommend its careful perusal by all committees and shareholders, as he lucidly proves by experience that cheap labour is not always the most economical; "for," says he, "I have observed that those men who on contract get the largest wages are invariably the cheapest men to the adventurers."

With such convictions as these, which we feel persuaded Capt. VIVIAN

conscientiously uttered, we trust he will, in his new and extended circle of acquaintance, spread and urge, with the industry he so strongly recommends, the desirability of placing such information within the reach of the working men who are desirous of profiting by them. Without this desideratum all professions are but as sounding brass or tinkling cymbal. This would be true charity. We have all along advocated the principle of a cheaper rate of education for well-recommended youths, who have been underground for two or three years, and whose minds are thus prepared, by actual practice, to receive and adopt the higher branches of instruction. To such at present, if they have not friends, patrons, or money, they must remain a sealed book, or if acquired without the practical knowledge they become a burden and a trouble. We hear many complaints that the expenses are too heavy for the purposes proposed, and that the miners will not, because they cannot, avail themselves of the advantages. They look on the establishment with jealousy as a school for favoritism and patronage, in which the privileged will be fostered and provided for, whilst ability will be allowed to pine in neglect. This idea, which we fear is too prevalent, is fatal to all really useful endeavours. If our Government or our Duesy Office could be persuaded to be liberal enough to give encouragement to such youths, we feel certain they would not have cause to regret. We can assure them we know of many who evince considerable ability that, had they the opportunity, would undoubtedly improve themselves and their fellows. Some we have known to hoard their earnings, but who in blank despair learn that the amount required is, perhaps, more than the savings of three years of hard labour can command. If the fees were reduced to one-half their present amount, we think the move would be in the right direction. We acknowledge much good has already been done, but feel that the circle of permanent utility must be greatly enlarged.

Whilst foreign countries sedulously cultivate those branches of science in conjunction with mining, we appear, until lately, to have entirely neglected them. The great progress made by Cornishmen in their mines, and the colliers and lead miners in other parts, sufficiently proves they are skilful engineers as well as working miners; they, therefore, deserve encouragement. We hope, whether they receive the attention they deserve or not, they will not relax that energy in progress their past history and present status so powerfully demonstrate, but take the advice of themselves, to persevere, as that secures to them a never-failing reward. In the session about to commence, the lectures are of a most instructive and interesting description; we trust they will effect the end for which they are intended, and for which so much talent is enlisted.

In former articles on the postal communication between this country and our Australian settlements, we pointed out the great advantages of a second and independent route via Panama, that the present line might terminate at Melbourne, and the new one at Sydney, leaving the transmission of the mails between these two places to be effected by local steamers. The present advice gives further proof of the necessity of this course, and shows the soundness of our arguments. The *European*, which brought the present mail to Suez, was detained two days by heavy contrary winds between Sydney and Melbourne, and the *Sinla*, which brought the May mail, was also detained in a similar manner, while the local steamer, the *Governor-General*, has been so completely disabled by the violence of the winds and severe weather in the same passage, that it is supposed she will have to be superseded altogether. It is most essential that the double line of postal intercourse should be established, and there does not seem any difficulties in the way. Mr. Werron, the agent of the Royal Mail Company, has returned to this country with a consent from the Government of Sydney to provide an annual subsidy of 50,000*l.* for this purpose, but as the heavy portion of the June mail, via Southampton, has not yet been delivered, we are without papers and general letters from which to obtain information as to the views of the Victorian Government on the question.

The amalgamation of the *EUROPEAN* and *AUSTRALIAN* with the *ROYAL MAIL STEAM PACKET COMPANY* gives such a powerful combination of strength and connection, that the double route may be conducted in a more efficient manner than probably would be the case if each company had remained separate, with a distinct route. It will be remembered that Mr. Wilson, on the part of Government, stated in the House of Commons, that the matter had not been brought officially before him, but we have reason to believe that a formal application will now be made, and evidence furnished of the power and capabilities of the amalgamated companies to carry out a contract for the double line, via Suez, and via Panama, with efficiency and punctuality. The *European* and *Australian* Company is controlled by a board of directors of the most influential merchants in Glasgow, while the London department is most efficiently conducted by a manager and secretary of great commercial experience. The *Royal Mail* board is equally influential and important in the mercantile acceptance of the world, so that a fusion of the two gives solid ground for the sanction of the Government for extending the present contracts, to ensure to the British and Colonial merchants and others the due performance of their postal engagements.

The interesting and satisfactory proceedings at Plymouth, on Tuesday, notice of which will be found in another part of our Journal, will be read with delight by our subscribers, it being now a guarantee for the entire success and herald of the rapid completion of an undertaking which will undoubtedly have a marked effect on Cornish mining adventures, as well as on the other important interests of that county. The great and much-cavanned question of the feasibility of the construction of the *ROYAL ALBERT BRIDGE* over the River Tamar is now virtually settled; we trust, and doubt not, much success will inspire the shareholders, and those who are the management, to use every exertion to obtain a completion of the action, so as to get a part of, if not all, the line into action.

The ease and speed with which the *ultima thule* of the mining district has then been reached will assuredly cause a mighty influx of adventurers, who, not "preferring your eyesight to their own," will visit the locality. Though they may not be able to form a correct estimation, they will be enabled easily to ascertain the existence of the property (some may doubt), or of the "splendid piles of ore at surface" (as frequently asserted to be fictitious) for their properties; this they will do when the journey shall be so quickly and inexpensively accomplished as it will be before long. Hitherto, the stoppage of the rail at Plymouth has been the great barrier; for though the ride to Truro on a certainly well-appointed horse coach in summer time be pleasant enough, and recall old associations, and may be all very well for, and probably suit, persons traveling for amusement, still to men of business the delay at Plymouth, the change from rail to coach, the arrangement of and looking after luggage, &c., is a source of considerable annoyance. Very frequently the coach is a source of filled, and there is no chance of proceeding on the journey but by posting; a troublesome and costly mode of conveyance over roads like the Cornish highways, where "Rebecca's" reform has been badly wanted. Besides, on a wet day a ride of forty or fifty miles on the side of a coach (in those days of so much comfort in travelling) is a hammer to the most sanguine traveller, and exceedingly apt to put him out of all patience and humour, he be ever so clad in waterproof.

All these inconveniences will, however, now shortly be annihilated by the noble effort, which we trust will be carried forward with all possible energy; then not only will the mines receive a vast increase of visitors, but a confidence in these undertakings will be established. When the resources, the enormous extent, the amount of ability, and the amazing capital already profitably engaged, shall have been witnessed, such men will confirm many who doubt, decide many who waver, and incite many who never intended to embark in such speculations,—in short, it will be good; as all that is required for mining *de facto* is its being known to be more generally appreciated.

Then will the splendid watering-places on these coasts (now almost unknown) be extensively visited, their very seclusion and retirement being their greatest charm; here, in the beautiful little nooks and picturesque bays, will be found that repose the toiling merchant and his family require in contradistinction to the bustle and excitement of the city, or the continual change of a fashionable watering-place; or, if the gaieties of the season be in requisition, an hour's ride will obtain it at Plymouth, Falmouth, or Penzance; on the morrow seclusion may be again reached at any time. When these places will be to the metropolis what Margate, Brighton, or Hove Bay were, to Manchester and the manufacturing districts, what Scarborough, Douglas, or Bridlington are, their superiority as watering-places and bathing establishments will in a few years be admitted; as winter residences for invalids, their mild climate, genial as the south of France, has long been celebrated, and when so easily approached it doubtless be sought by large numbers.

The fisheries of the coast, capable of increase to any extent, will have

new markets opened to them by the rapid and easy transit; the unrivalled vegetable productions of the neighbourhood of Penzance and the West will be transported with as much regularity and perfection as if grown in the locality of its consumption, in short, it will open up a new era for Cornwall, and regenerate her interests, which have partially been crippled by the removal of the mail packets from Falmouth on the introduction of steam-vessels to Southampton; when the rail shall have been completed to the former town, a gleam of hope for the return of its former grandeur and celebrity will dawn; and if precaution and energy be used, its splendid harbour may become the seat of that traffic Nature seems to have designed it for.

If we consider the stupendous bridge as a work of art, independently of its practical utility, we cannot but be gratified, affording as it does a satisfactory and convincing proof to all persons concerned (particularly Mr. BRUNEL and Capt. HARRISON, who were present) that the *Great Eastern* steam-ship, constructed by the same engineer, and on somewhat similar principles, will also be a triumphant success. With what anxiety and thrilling interest must they have watched every motion, every chance of casualty to which such attempts are always liable. Great as must have been their gratification and just pride, we would scarcely have undergone the ordeal to have enjoyed the pleasure. For them it was a proud achievement, for Devon a proud day, for Cornwall a prouder, solving as it did the important question "To be, or not to be?" It may now be safely stated that Cornwall is an integral part of England, though the beautiful Tamar so nearly isolates it, and its exclusion from the modern system of locomotion had almost sanctioned the idea.

Justice is not always justice, even in England, where we boast of the unsullied purity of judicial crime. Its administrators here will occasionally play and pranks, not from any corrupt or improper motives, but simply from obedience to a passing whim or caprice. Nevertheless, however harmless may be the cause, the result is the same as though it were the most venal and scandalous; and it can make very little difference to a man whether the injustice of which he is the victim be due to corruption or to prejudice. By the handsome salaries paid to the exponents of our laws, corruption is a thing unknown to the English Bench, and the most demented suitor would never think of offering a bribe to an English judge. But, on the other hand, it must be confessed that due precautions have not been taken—not, at least, in some of the recently-constituted tribunals—to prevent or counterbalance the exercise of personal prejudice or caprice in the administration of justice. The Courts of Bankruptcy afford an instance of this unfortunate omission. They are the only ones in which the decision of one individual judge may affect the remainder of a man's life; and to confide such despotic power to a single person is neither in the spirit of our laws, nor in the habits of our people. It is erecting a commissioner into an infallible being, whose decisions are as irrevocable as the laws of the Medes and Persians, and from which there is no appeal, so far as regards the capabilities to do so of 999 out of 1000 suitors in those courts. In a case that was heard last Tuesday we had an example of this capricious, prejudiced, and despotic administration of justice. A German importer of foreign goods, residing in Coleman-street, was made a bankrupt. It came out during the hearing that there was no very grave charge against him so far as his ordinary trading operations were concerned, but it appeared that the insolvency was wholly or partially due to the bankrupt having embarked in a theatrical speculation for the performance of German plays in England. Whereupon the Commissioner in Bankruptcy refused the unfortunate trader both a certificate and protection, remarking that in this respect the insolvent's conduct had been very foolish, for who ever had anything to do with either theatres or mines was sure to be ruined. With regard to the legitimacy of theatrical speculations, we have nothing to do; but we cannot allow Mr. Commissioner FONBLANQUE's sweeping condemnation of mining enterprise to pass without attempting to show its injustice and absurdity. In the first place, admitting, which we do not, that it is foolish for a man to embark in either of these undertakings, it does not follow that folly is to be punished as a crime, and that in the harshest manner possible. Mr. Commissioner FONBLANQUE may, for aught we know to the contrary, be a very great saint, and look upon theatres as so many branch establishments of that place which the Portuguese say is paved with good intentions; but he ought not to carry these views with him on to the bench, and make his decisions as a judge subservient to his private prejudices. With regard to mining enterprise, nothing can be more unfounded or more ridiculous than the statement that all connected with it were sure to be ruined. Mining enterprise is, in reality, the great source of our national wealth, and, indeed, of the prosperity and civilization of the whole world. Were Mr. Commissioner FONBLANQUE's eccentric opinions (not to call them by a harsher term) to prevail to-morrow, not only would England descend from her rank among nations, but the whole world would speedily relapse into barbarism and misery, such as were not known during the darkest of the middle ages, and which could only have existed before the pre-historic period. The most superficial reader of Custom House returns cannot fail to have remarked how large a part the produce of mining enterprise plays in the trade and commerce of the country; while with respect to the position of persons connected with it, we have yet to learn that the Earl of DUNHAM, the Marchioness of LONDONDERRY, CRAWFORD, and a host of others too numerous to name, are likely ever to trespass upon Mr. Commissioner FONBLANQUE's judicial attention.

As we have been enabled to anticipate so much of the general intelligence which has been received from Victoria by the present mail, our letters necessarily do not contain much fresh matter for our readers. The Legislature continued in deliberation, but without any material benefit resulting to the colonists therefrom, party politics and views being apparently the chief consideration of the different political sections. The Land Bill had provoked great discussion in the House of Assembly, and on one occasion it had sat for 20 hours, from four o'clock p.m. to twelve o'clock a.m., which is unprecedented in the annals of any Parliament. Altogether the political state of affairs had been, indeed, was still, as exciting as anything in England during the late general election. It was fully expected that the Legislature would be prorogued about the middle of July, and, therefore, it was extremely doubtful whether there would be an opportunity of discussing the railway question during this session, especially as the opposition to the Government had become so troublesome and serious in respect to all ministerial bills, that it was thought the Parliament would separate before one-half the business could be done which ought to be dispatched, consequently the report of the Railway Committee would be referred to the next session, to be held in November. Mr. MOSSMAN was summoned for June 9, and is represented as having given a clear and concise exposition of railway matters during an hour and a quarter's examination before the Railway Committee of the Legislative Assembly. Mr. HAINES is reported to have given much offence to his late colleagues by his vote and exertions on the Crown Lands Bill, and the public generally is represented as being opposed to the measure.

The census had been made for the colony of Victoria to June 30, and shows a total population of 414,000. This is a very extraordinary increase over the last statistics on this subject, and is good evidence of the rapid manner in which the colony is progressing.

The Hobson's Bay and Melbourne Railway pays a dividend of 14 per cent.; the 50*l.* shares are quoted at 95 to 100, and consequently at a premium of nearly 100 per cent. The St. Kilda branch of this line, recently opened, is expected to be equally lucrative, thus affording incontrovertible evidence of what can be effected by private enterprise, without Government interference in any way. The Geelong and Williamstown, generally known as the Geelong and Melbourne, Railway was expected to be opened in a few days for general traffic; but as that portion of the Mount Alexander line which will connect Williamstown with Melbourne was not nearly finished, it was calculated that much of the traffic from Williamstown would be taken across the bay by steamers to Sandridge, and thence by the Hobson's Bay Railway to Melbourne.

The shipments of gold were above the average. Up to June 24, no less than 1,052,558 ozs. had been received in the capital by escort from the gold fields, and 1,236,428 ozs. had been shipped. Although there was still a week to add, the returns exceeded those of 1854 and 1855, while those of 1856 were "approached within reasonable limits." The shipments of 1,236,428 ozs. are equivalent to 51 tons 10 cwt. 1 qr. 10 lbs. 8 ozs., which at the value of 4*l.* per oz. is equivalent to a total of 4,954,712*l.* With respect to the future returns, it is remarked—"Not only have new leads of great richness been opened up, but the superior power and capacity of the machinery now available to the mining population enable them to bring more of their raw material into immediate conversion. The number of machines driven by steam-power is increasing weekly, and the ag-

gregate horse-power reaches an amount that few people would have estimated it at. It is a very noticeable feature that each succeeding machine erected is larger and more complete than those already standing, and that greater facilities for its use are guaranteed to the miner."

Mr. S. J. COOKE, the London agent of the Geelong Railway, has written to a weekly contemporary, to offer remarks on "Railways in Victoria;" but the gist and object is really to quarrel with ourselves for being well informed on all matters connected with this important colony. As is usual with this gentleman, in his gratuitous communications to various papers, from time to time, he is again most irate with the *MINING JOURNAL*, and all who presume to differ from him in opinions and views.

This notable epistle is prefaced with an "elegant extract" from the *Family Herald*, that "there is nothing so simple as to speak the truth—nothing easier than to pervert the truth." This is a capital orthodox text wherewith to commence, but it seems an arduous one to expound or act up to by he who quotes it. This we will fully exemplify. His inapposite prefatory remarks, and his spurious profession of regard for truth, will be incontestably shown by the positively abominable and worthless character of his communication. Mr. COOKE says that "the *MINING JOURNAL* is no doubt a fair authority on matters relating to mines, and perhaps on general subjects of public interest on which it may treat; but why it should arrogate to itself an exclusive possession of information concerning colonial politics, and hold itself up as an infallible expositor of Australian interests, it is hard to conceive."

It may be hard for Mr. COOKE to conceive what the *MINING JOURNAL* has to do with Australian matters; but we think that any man with an ordinary capacity of comprehension, and without any extraordinary application thereof, may readily conceive an effective affinity of interest between the *MINING JOURNAL* and *RAILWAY GAZETTE* and the inexhaustible metallic treasures of the gold mines of Victoria and the prolific copper mines of South Australia. We do not arrogate to ourselves either "an exclusive possession of information," or of being "an infallible expositor of Australian interests;" but we certainly do take credit for having invariably given prompt and accurate information on matters connected with the colonies of Victoria and South Australia, with which our class readers are particularly identified. With New South Wales, Tasmania, Western Australia, New Zealand, &c., we take but a general interest, and only occasionally allude to them when special circumstances transpire; but on the particular and general interests of Victoria and South Australia, for reasons already assigned, we exercise an undoubted right and duty to obtain and give publicity to early and impartial information. That we do this Mr. COOKE inferentially admits in the letter in question, and the advice by the last mail show how correct we have been. They confirm our assertions on all important points, whether they were on the question of "Railways in Victoria," the establishment of a national bank, postal communications, or even the policy of the new Government; while, with respect to the much-vaunted question of Government construction of railways, and interference with private enterprise, Mr. COOKE himself is now obliged to coincide in the views we expressed in opposition to his positive declarations; and it is not us, but Mr. COOKE, who remained a "close partisan of the scheme" of the former Government, but "changes his tactics," and now follows in the wake of the general colonial press, which declares "that the feeling of the public is so strongly adverse to Government construction, that the chances are now greatly in favour of any private enterprise of general utility."

The accuracy of our information on Australian matters is proved by the manner in which our contemporaries of the daily and weekly press quote from our columns; and even the *Australian* and *New Zealand Gazette*, a journal exclusively devoted to Australian and New Zealand matters, and in which this letter from Mr. COOKE appears, does likewise avail itself occasionally of our intelligence, which is significant of the value attached to our early information.

Mr. COOKE then proceeds to assert that, "whilst the London company continued in their promises and hopes of success, the *MINING JOURNAL* remained a close partisan of the scheme; but when failure resulted from their imprudent course, this Journal changed its tactics, and now states that the line determined by the local Government was really from Melbourne, and not from Geelong to Ballarat; nothing, however, is further from the truth than such a statement."

The agreement between the two companies was not ratified, but no failure occurred, inasmuch as no application was made to the Legislature by Mr. MOSSMAN, as agent of the Geelong and Ballarat Company, for the solid reason that, before he was many days in the colony he found that the direct line from Melbourne to Ballarat was the popular scheme, and this he anticipated in his letter to the London committee, of April 14, and published in our Journal of June 13, in which he says:—"In consequence of the rapid increase of population at the western gold fields, and the importance of the trade with the town of Ballarat (which is now as extensive as Geelong), the construction of a direct line between these towns is jealously watched by the Melbourne people and their representatives in the Legislature. It is apparent that they will exercise their strongest influence in opposing the Geelong and Ballarat line."

Moreover, in his communication of June 24, he remarks on the utility of applying for an Act for a line from Geelong to Ballarat, and has taken steps in Melbourne to organise a popular local committee, to act in concert with a London board, for a direct line to Ballarat from the capital. The fact is, that all our Melbourne correspondents have expressed surprise that a Geelong line should be contemplated at all, while one especially corroborates Mr. MOSSMAN's views, and, although not so courteous in his expressions as is always that gentleman, but we suppose is "quite colonial," says, "The fact is, Geelong counts for little after Melbourne, and scarcely exceeds Castlemaine in wealth or political strength. It is no exaggeration to say that Melbourne is to Victoria as Paris is to France, for the wealth and power of Melbourne can carry the day in all public matters. The Geelongese, as they call themselves, and which our local *Punch* renders Geelongese, are so narrow minded and selfish that the place will quickly dwindle into a mere little fishing town. There is as much commercial difference between Melbourne and Geelong as there is between your Liverpool and Hurne Bay."

Mr. COOKE says "nothing is further from the truth" than the idea of a railway from Melbourne to Ballarat being thought of by the "local Government." Now, let this gentleman be judged by his own words. In a memorial from the shareholders of the company which Mr. COOKE represents, and which emanated from his office, under date April, 1857, to the present Governor of Victoria, the twelfth paragraph "humly sheweth that your memorialists have heard with extreme surprise, not unmixed with apprehension, that a project for a direct line of railway from Melbourne to Ballarat, in substitution of a line from Geelong to Ballarat, had been recently mooted in the colony." Now, what is truth? Mr. COOKE says "there is nothing so simple as to speak the truth, nothing easier than to pervert the truth." We cordially concur with him, and leave the public to determine who speaks the truth in this question of "Railways in Victoria." Mr. WESTGARTH, whose veracity and character is beyond impeachment, fully confirms what we said, and consequently is opposed to the assertion in Mr. COOKE's letter. In his work, just published, he remarks, "the direct Melbourne and Ballarat line, the great antagonist of the Geelong and Ballarat, has already an ominous consideration with the general Government."

We continue our comments on this very indiscreet letter from Mr. COOKE by simply denying that we have ever changed our tactics; that we do not now advocate the line from Melbourne to Ballarat because the line from Geelong is abandoned by the Geelong and Ballarat Company, and quote from our own article of June 6, to show that our object was to support a line to Ballarat, either from Melbourne via Geelong, or from Melbourne direct:

"The only doubts," we remarked, "which to our mind appear of any moment in this question of railways in Victoria is whether the Government will sanction a line from Geelong to Ballarat, or from Melbourne to Ballarat. That antagonistic views influence the exertion of these two places, and their connected interests, is so well known that it scarcely needs comment; and a spirit of jealousy has always existed. Melbourne is the capital, and the Geelongites contend that their town ought to have been the capital, and hence an evident desire on the part of the latter to outstrip Melbourne in every possible way, while Melbourne interests are necessarily brought to bear against the efforts of Geelong. It is, therefore, futile to suppose that the new Ministry, under any circumstances, would construct a Government line from Geelong to Ballarat, and that if a Ballarat line as a national work were undertaken, it would be from Melbourne direct."

Mr. COOKE intimates that it is the "maddest possible presumption to organise any movement in this country to involve the English public in speculations in Australian projects." Mr. COOKE has eyes which see not, and ears which hear not, or otherwise he could not fail to recognise the reverse in all matters connected with Australia. The banks, formed on English capital, are governed by London boards, with merely a local manager and clerks in the colony, yet Mr. COOKE has the temerity to attempt

to controvert this action, simply and solely because he is the paid agent in this country of the Geelong Railway.

We regret to devote so much of our space to this matter, nor would we do so if it were merely a question between Mr. Cook and ourselves, but there is such a large sum of English capital already invested, and a still much larger amount ready to be invested, in Australian projects, that it is absolutely necessary to go into details for the protection of our capitalists and investors generally. We remarked in an article of June 6—

"On this point of capital, it is argued, and justly, by the proprietors of the Geelong and Melbourne shares, that this large sum of 363,000, out of 350,000, held on the London registry, is without any direct or legal control in this country, as the direction is entirely colonial, and they contend that their power here should be conformable to their interests; thus, in fact, requiring the transference of the board to London, and recognising that the safe and proper organisation of any company, when the capital is subscribed in England, is for the administration of its affairs to be vested in a London executive, with a local committee in the colony. A leading merchant in Victoria aptly remarks on this subject, and says, 'that if capital subscribed by English capitalists could be managed here (Melbourne) by a local board in banking institutions, surely the capital of railway companies could be managed similarly.'"

A memorial on this point has been forwarded from this country from the shareholders and bondholders in the Geelong Railway Company to the Executive in Geelong, and originated, no doubt, from the rumours, as well as statements in the local papers, that an unauthorised issue of debentures had been made, and which was not contradicted by the Chairman at the meeting of proprietors held at Geelong, in February of this year. According to the *Geelong Advertiser* of February 7, a shareholder, Alderman Burnow, stated he "held in his hand a document, showing that 189,000, worth of debentures (Geelong and Melbourne Railway) had been issued, instead of 102,000, as had been stated;" but, notwithstanding this inferential charge of, at least, irregularity, the Chairman said "no discussion could be raised at that meeting unconnected with the business of the meeting, but that any shareholder might see the debenture book, without being indebted to Alderman Burnow for the information." The majority of these debentures being held in London was the cause, possibly, of the request of the shareholders that a board of management should be established here.

In conclusion, we trust that Mr. Cook, and all sincere colonial patriots, will disregard local rivalries and petty jealousies, and work together for the ultimate good of the whole colony. Providence has abundantly favoured their adopted country, and henceforth let all work harmoniously together in that spirit of Christian charity which "seeketh not her own," and strive earnestly to realise the antipodean motto—"Advance Australia," by one union of object, one union of effort, one union of feeling.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

SEPT. 2.—The advance last week in the price of fine copper was accompanied by a corresponding rise in the standard, ore copper having gone up to 103½ lbs. per ton. The difference between this and the selling price of cake copper (121½ lbs.), is 17½ lbs., which is from 5½ to 6½ less than the average difference; and, consequently, if the present price of ore copper be maintained, we may expect a further rise in cake copper to 128½ lbs. per ton. In corroboration of this view, it is generally understood that the stocks of foreign copper ore are at present of small amounts. The recent rise of the standard has been nearly as rapid as its fall was, about three months ago; and the question naturally occurs, both to mining adventurers and manufacturers, whether there is any sound and justifiable reason in trade for these rapid fluctuations which the smelters inflict upon producers and consumers, to the serious damage of their interests. Mining shares are depreciated when the standard falls; and the manufacturers also suffer from the fluctuations in the price of fine copper, because of the uncertainty it imports to their trade operations. At the present time there is a good demand for metals, and it cannot but be gratifying and encouraging to mining shareholders to see the copper standard rising almost every week. The extent to which it was already risen in the last two months will be instantly apparent from the following figures:—

	Tons.	Standard.	Produce.	Price per ton.
July 2.....	2860	\$129 15 0	6½	\$5 17 0
" 30.....	3730	135 15 0	6½	6 4 6
Aug. 27.....	2907	145 5 0	6½	6 17 6

The produce being the same at each of the above dates, it is evident that ores of similar quality sold at 1½. 0s. 6d. per ton more on Aug. 27 than on July 2. The advance is a very cheering one for the mining interest; and the Government returns are equally encouraging, inasmuch as they exhibit a steady increase in our exports of copper, tin, and lead, when compared with corresponding months in the previous year.

The mining share market is dull, the position of the money market preventing many speculative purchases by capitalists out of the county. Wheel Basset shares are low, but any improvement will most probably be attended with a rapid rise. South Frances shares are about 280s. East Basset, 42s. Wheel Margery shares have a little improved. Alfred Consols from 16½ to 16s. West Damsel is favourably regarded by some, and shares have gone to 100s. and 105s. South Tolguas, about 120s. Great South Tolguas, 16s. The improvement and prospects of North Roakbar have recently caused a demand for shares. Clifford shares are flat, but there seems little doubt that the mine contains a great deal of ore, and that prospects will again brighten. North Wheel Croft has for a long time tried the patience of the adventurers, but it appears to be a promising piece of ground, and worthy of perseverance; the shares are at present low. At North Frances, Eales's shaft being down to the 78, it will soon be seen whether the levels will be productive; those above presenting good indications of ore in depth. West Basset is looking well in the bottom, and shares are at 26½. 15s. to 27s. Wheel Margaret, 68s. to 70s. Wheel Kitty (Leland), 23s. Cargoll, about 10s. and 11s., which seems to be a low price.

A very singular error was noticed in the Journal last week, with respect to the report of the Committee on Rating the Royalties of Mines. Mr. Cavendish carried an amendment in committee, stating that the lords' dues in Derbyshire are taken in kind, and are assessed to the poor and highway rates; but, it appears, the report of the committee omitted the remainder of Mr. Cavendish's amendment, "and that the rates are paid by the lord, and that this custom has prevailed for a long period with satisfaction to all parties." Considering the bias of certain members of the committee, it is very charitable to attribute this singular omission to the Chairman having, in error, erased more words than he ought to have done. It was certainly an unfortunate omission, and makes the report more in favour of the lords than it would otherwise appear. It would, however, be harsh to attribute the omission to design; and, therefore, the more charitable view would seem the better to be entertained.

The electric telegraph is now completed from Falmouth to Plymouth, and messages are sent of the arrival of ships for orders. It is very extraordinary, however, that no arrangements are made for transmitting messages from places between Falmouth and Plymouth; so that the anticipated benefit of sending immediate intelligence of improvements in mines to the metropolis cannot at present be realised. This defect will soon be rectified by an opposition company, if the company who have now laid their line do not soon accommodate the public.

THE IRON AND COAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

SEPT. 4.—The Iron Trade presents a firmer aspect this week. The last packet brought a fair amount of orders from America, and the advices are generally more favourable. Both the home and continental demand is also better, and generally an improved feeling prevails. A continuance of this improvement will make the iron trade generally active in the district, the second makers having for some time been only slack, as a proof of which puddle bars have been very freely offered to large makers at lower rates lately, which would, if the smaller makers could have sold finished iron, been made into finished bars by themselves. A gentleman possessing ample opportunity of judging of the state and prospects of the trade, ridiculing the suggestion in the *Times* of a probable advance in price, says truly, "It will be time enough to talk about an advance when the supply is not equal to the demand."

Pigs remain at former rates, but a continuance of improvement in the demand for finished iron will make prices firmer.

The Coal Trade is becoming brisker as the season advances, and the general trades of the district exhibit signs of increased animation.

Mr. Brough states the total deaths from colliery accidents during 1856 to have been 156, being 19 less than in the previous year, or a decrease of 11 per cent. Mr. Brough considers this "an unsatisfactory diminu-

tion," but it is certainly an important step in the right direction. The report is very ably drawn up, and Mr. Brough evinces in it, as he does in the performance of his duties, an earnest zeal for the preservation of human life, tempered by discretion and a just allowance for the difficulties which impede the progress of improvements in mining. The Act can only produce beneficial results by being applied in this spirit, as the concurrence of the great body of thinking and well-disposed men is necessary to the successful operation of any legislative enactment, particularly in this country, where so much jealousy is felt in respect to Government interference. Some deservingly severe remarks, in which, however, no ill-temper appears, are made in reference to an explosion at the Ranwood Colliery, belonging to Lord Ward, the particulars of which were detailed in the *Mining Journal* at the time of its occurrence. Besides the deaths from coal-pit accidents, 37 persons had been killed during the year in ironstone pits, to which the Act does not apply, but which Mr. Brough justly thinks should equally come under its provisions. No death has taken place during the year from any boiler explosion at a colliery.

[The Mine Inspectors' report being fully noticed in another column, precludes the necessity of inserting our correspondent's remarks.] Messrs. John and Joseph Aston, of the Burn Tree Colliery, Tivdale, were on Wednesday fined 40s. on each of two informations preferred by the Government Inspector, Mr. Brough, for breaches of the special rules, the penalties being reduced at the request of Mr. Brough, Messrs. Aston having promised to supply every deficiency in all their collieries.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

SEPT. 3.—The position and prospects of the Iron Trade are, on the whole, satisfactory, and the tone of the market affords a strong indication of its sound and healthy condition. Home requirements continue to be large, whilst those for the Continent, &c., do not show any falling off, except for India—a vast empire, now the object of interest in all parts of the world. The Yorkshire houses are well supplied with orders, and prices are maintained with much steadiness and regularity. The shipments for the past week again show an increase of upwards of 1000 tons as compared with the returns of the corresponding week of last year. The increasing demand for iron for railways has caused the makers of rails to be more actively employed.

We have no alteration to report in the Coal Trade. The demand has increased, and as autumn approaches we shall experience a more active trade. The requirements for exportation continue to be very large.

The colliery and coke works at Lockford, near Chesterfield, worked by Messrs. George and Robert Stephenson, have been closed, in consequence of an inability to get the coal to a remunerative price. The roof of the pit is, we understand, very defective, and numerous faults have been met with, which have made the getting of the coal very expensive. Messrs. Stephenson have also suffered a heavy loss from a debt of several thousand pounds, which had been allowed to accumulate by their resident manager. This circumstance, coupled with their determination not to sink more capital, led to the closing of the colliery. The works, which gave employment to about 150 men and boys, were closed on Monday, and the men paid off, except a few who are required to look after the plant, which, it is expected, will soon be sold. All the men have obtained work at the collieries in the neighbourhood, so that the stoppage of the works will not occasion any depression in the neighbourhood. On Tuesday the workmen, managers, and their friends partook of a farewell dinner, which was provided by Mr. Turner, the host of an adjoining inn. It was attended by about 160 persons. Mr. Howe, engineer to the Clay-cross Company, occupying the chair. The health of Messrs. Stephenson was drunk with enthusiasm, and a well-merited tribute was paid to the memory of the late George Stephenson. Mr. S. Parker, who had been manager of the Lockford Colliery for about thirteen years, was also highly complimented by the men for the uniform kindness which he had shown to them. Mr. Howe, who was also the engineer at Lockford, was likewise spoken of in terms highly favourable to his skill and judgment in difficult engineering operations. There is a balance at the colliery remaining from the sick fund, advanced by Messrs. Stephenson, and, as they have declined to receive it, the men are to have a treat to Chatsworth Park on Monday.

Arrangements are in progress for making a railway from Nottingham to Boston, which will greatly facilitate the coal traffic. The line, it is expected, will be made at a moderate cost, the country being flat, and the line of route direct, and the land accessible on reasonable terms.

The first sod of the South Durham and Lancashire Union Railway was turned last week by the Duke of Cleveland, at Kirby Stephen, Westmoreland. The line is intended to form a direct communication with the ports of the east and west coasts, and a large traffic in coke, coal, and iron is expected. The cost of the 44 miles of railway is estimated at 375,000s. It will connect the coal-fields of South Durham and the important iron formations of Cleveland. It will give direct access to the hematite iron ores of Lancashire and Cumberland, where about 60 blast furnaces are in operation, requiring about 100,000 tons of coal per year.

Several directors of the Midland Railway Company visited Neyland, and subsequently crossed over to Ireland, for the purpose of making arrangements for booking passengers through to Ireland at various stations on the Midland line, and otherwise developing the traffic over the South Wales Railway.

Some important colliery informations, preferred by Mr. Morton, of Wakefield, were heard at Bradford on Monday, before the magistrates. Mr. Skipworth supported the informations, and Mr. Terry appeared for the defendants in each case. James Harrison, engineer at the Sykes House Colliery, Drighlington, belonging to Messrs. Terry and Rhodes, was fined 2s. and costs for permitting a boy under 13 years of age to go down the pit unaccompanied by a man. He had also allowed five persons to descend the mine at one time, and one of them fell out of the corve, and was killed. Ralph Siskington, bankman at the pit, was fined 2s. and costs for a similar offence. Charles Thresh, underviewer at the colliery, was charged with seven distinct breaches of the special rules. He was fined 5s. in each case (35s.) and costs, or one month's imprisonment, in each case. Messrs. Terry and Rhodes, the owners of the colliery, were summoned for having neglected to inform the Government Inspector within 24 hours of a fatal accident which occurred at their pit. They were fined 20s. for this offence, and 5s. for not having the shaft of the pit properly lined and cased.

STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

SEPT. 2.—The market has been only slightly influenced this week, and any alteration has been towards better prices. The following are the latest quotations:—Consols, 90s; New Three per Cents, 90s; Hibernian Bank, 32½; Mining Company of Ireland, 15; Cork and Brandon, 8; Great Southern and Western (ex div.), 101; Midland Great Western, 50½; Kil-larney Junction, 10.

The meetings of the British Association closed to-day, and although the oldest inhabitant could not in this instance give much useful information, it has, nevertheless, been stated by those who have witnessed the former meetings of the Association that the present, or rather past one, has been one of the most successful and happy meetings ever enjoyed by the members of that learned body. Everything seemed to contribute to render the meeting an agreeable one. Royalty, through its representative, led the way in honouring the aristocracy of the mind, and the Lord-Lieutenant, who was present at the opening meeting, and never missed a day in attending the reading of the papers brought before the sections, fittingly closed the evening conversations of the members by giving them a most brilliant reception last night at Dublin Castle. As it was the Lord Mayor who was the chief cause of the Association being invited over this year, it may also be imagined that civic festivities were not spared. On the new lecture-hall erected under one roof in Trinity College 27,000s. have been expended, and its doors were first opened to, and its walls gave forth their first echoes to the voices of science, which even their extended limits will not control, under the auspices of the British Association. To it also was indebted the early opening of the Museum of the Royal Dublin Society, erected on the site of the Exhibition of 1853, and built partly by the Parliamentary grants, and partly by the funds collected towards the "Dargan Institute." For the purposes for which these two buildings were used on the present occasion they were admirably suited, and would seem to have been almost specially built. The College building is a very beautiful structure, designed by Sir Thomas Dean, Son, and Woodward, of Cork, and erected under the superintendence of Mr. J. McCurdy, a Dublin architect. It is an oblong square, two storeys high,

built in the Byzantine style of architecture, with elaborate gothic carvings in Portland stone. The most striking portion is the central hall and staircases; the former is the entire height of the building, and is surrounded by two doors with glazed centres, the concave surfaces being studded with different coloured encaustic tiles, giving a pleasing, novel, and beautiful appearance. Round the hall are various arches, supported by marble columns in pairs, and surmounted with beautifully carved canopies in Portland. These pillars, as well as the flanges of the balustrades, were all, with one exception, of Irish marble, principally from Cork, Connemara, and Armagh. The building is 150 feet long and 90 feet broad.

The new Museum building of the Royal Society rivals the College building, both in beauty and fitness for the purpose intended. When internally finished, few cities will be able to boast possession of a similarly handsome structure; it is of a chaste style of Italian architecture, and is divided into two storeys, the lower room being intended as a geological museum and for the reception of salmon tanks, such as those exhibited at the Dublin and Paris Exhibitions. The upper room, also intended for specimens, is a magnificent one, running almost the entire length of the building—about 230 feet—and reaches to the roof, which is an arched one with a glazed centre, and supported with girders going the entire way round; the highest being over 60 feet, there is sufficient room for two tiers of galleries running the entire way round the room, thus very much economising space, while it renders this noble room more attractive in its proportion. Lighted up (as it was brilliantly on three evenings during the last week), the effect was very striking on entering at first, and its great length lending "enchantment to the view," coupled with the superb and rich painting of the girders and the other wood work, made the scene, when enhanced by the presence of more than 2000 ladies and gentlemen, in ball costume, especially pleasing.

I may be excused for dwelling on details, which I hope may prove interesting, and will in future communications endeavour to give the essence of the principal papers read before the different sections of the Association, but must premise by stating the utter impossibility of noticing all the papers read, or of doing more than merely glancing at some of the more important ones. The very titles of the papers read, with the names of their authors, would fill columns, and be of very little interest.

I will soon have to bring under your notice a mining company about being established under very favourable auspices. The mine has been, and is at present, worked with profit, producing copper and silver lead in good marketable quantities. More capital and machinery are required, and it is intended to form a joint-stock company, under the Limited Liability Act.

The farm now cultivated by Mr. Alan Pollock, in the West of Ireland, consists of 20,000 acres. There are at present under turnips 2000 acres, oats, 3000; wheat, 1200; potatoes, 400. He has 1000 head of cattle for stall feeding, 400 working horses, and pays 4000s. monthly in wages. There have been erected on it 50 miles of stone wall fences.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

SEPT. 3.—On Thursday next the extensive sale of collieries and mineral, by Mr. T. Watkins, of Cardiff, which has been advertised for several weeks past in this Journal, will take place at the Commercial Rooms, Bristol. The property is well situated for the purposes of transit, lying in the Rhymney, and part in the Ebbw Valley. From these parts excellent railway communication exists both with Cardiff and Newport, and also with the chief consuming districts direct. Staffordshire and Shropshire may very shortly be reached by means of a loop line on the Newport, Abergavenny, and Hereford Company's road, and the general facilities for speedy conveyance of the minerals are in every respect advantageous. The property is to be sold in four lots, the first consisting of a mine on the Brithdir vein of an area, according to the stated measurement, of about 233 acres. The pit is sunk to the depth of 25 yards; the vein is pretty accurately described as from 36 to 40 inches thick, and the whole concern is in good working order. Part of the coal is subject to a royalty of 6d. on the ton of 2520 lbs., and another portion to 7d. on same quantity, and 1d. per ton wayleaves. A dead rent, averaging 25s. an acre, is also chargeable, "part of which," says the auctioneer, "is allowed in the royalties on the coal worked." There is, moreover, and driven into the coal for some distance (about 200 yards), which would doubtless prove very remunerative if worked. The plant attached is nearly complete, and consists partly of 20 coke ovens, of 7 tons each. The workings are calculated to produce 150 tons per day,—"an estimate which may be rather over the mark, but we are able to confirm, from our own knowledge, the general truth of the above representations, the lot being undoubtedly the most desirable in the sale. The second lot adjoins the just described, but is less considerable in extent, and of comparatively insignificant value. New openings would be required before any coal could be secured. The lease of a farm, 45 acres in extent, rental 12s. 8s., years unexpired, accompanies this lot. The third lies in the Rhymney Valley, and consists of "coal, iron-stone, and freestone, lying under 300 acres of land, or thereabouts." The site is represented to be a good one for blast-furnaces and ironworks, but we imagine the vicinity of the Ebbw Works will interfere with its value for this purpose. The district rich, however, in minerals. The last lot comprises a recent colliery in Ebbw Vale, of about 500 acres, and average royalties. The purchase will not require to be at much outlay, and the Western Valley line of Monmouthshire Railway and Canal Company affords ready communication with the docks of Newport. The whole of this property is certainly worth the attention of speculators, the first lot, as we have already intimated, being the most superior. Notwithstanding the unsettled state of monetary affairs, a sharp competition is anticipated, and we have no doubt good prices will be realised.

The coal from the above collieries, like all that produced from the coal field of South Wales, is of very excellent quality. The entire lot, which differs materially from the western, is estimated to contain 800 square miles, and its extreme thickness, reached at Llanelly, 3400 yards. The seams, which are divided into three principal divisions, thinning out to the south and north, present different peculiarities in different districts. It is known, however, that few districts are richer in coal and ironstone; and it has been stated that one seam alone contains 106 feet of coal in 735 vertical yards. The seams are often worked at a less thickness than 3 ft., and improved systems of mining are in operation. The chief works are found at Ebbw Vale, in Pen-y-dar, the Forest of Dean, Pontypool, Aberdare, and the Valleys. Active operations are almost constantly being carried on at these and other places, and the extension of railway accommodation is alone wanted to increase the traffic. The new line of rail to Monmouth has been long in course of construction, and its opening was announced to take place some time ago. It is now, however, positively asserted that the event will be off in a very short time, the Government Inspector having signified entire approval of the work. We trust that, after so many delays, further obstacles will arise, and that disappointment will not again be experienced.

We understand it is in contemplation in several considerable collieries to erect ventilating fans, on the model of that now in use at Abercrombie, found to act with the most complete success at the latter place, and doubtless being the means of preventing many explosions. The device is Mr. E. Rogers, in conjunction with Mr. Nasmyth. The fan is 11 ft. in diameter, and has eight vanes, measuring 3 ft. 6 inches in width, and 3 ft. in length. The speed at which it works is about 60 revolutions per minute, but this is capable of being nearly doubled in cases of emergency. Such an instance occurred at Abercrombie some time back: an explosion of the workings was heard by Mr. Rogers, and he immediately ordered the steam to be turned on to the engine of the fan, whereby the pressure was greatly increased, and the after-damp dispersed in time to prevent loss of life. The fan is driven by a small engine, and is of cheap construction. Few alterations or repairs are required in it, and that at Abercrombie is as efficient as when erected. The security of the colliery is not suffered to depend upon the action of this ingenious instrument alone, as safety-lamps are strictly enjoined, and no naked lights are allowed. The consequence of these precautions is, that although the seam is a dangerous one, no serious explosion has occurred for some time.

Two fatal accidents have occurred, since we last wrote, at Duffryn, both resulting from falls of roof on the miners, the first happening in No. 1 pit of the Dowlais Company. The juries in both cases returned a verdict of accidental death.

We have no alteration to notice in the position of the Iron and Coal Trades. The former is, perhaps, less brisk than it has been latterly, but orders have abated. Nevertheless, confidence generally prevails, and business done is of sound and healthy character. The tin trade is also brisk, and prices firm. The rise in the standard of copper has exercised but

mediate attention:—		
Devon Burra Burra.	Takenbury Consols.	Great Wheal Busy.
Bolling Well.	Dale (Limited).	Drake Wails.
North Wheal Wrey.	South Bog (Limited).	West Wheal Edward.
Barf.	East Providence.	Whiteburch Down Cos.

Every information given, either personally or by letter.

P.S. PLUMBAGO.—FOR SALE, 5 tons of PURE CUMBERLAND LEAD, in

SOUTH-EASTERN RAILWAY.—The Directors of the South-Eastern Railway Company are prepared to receive TENDERS for the PURCHASE of a quantity of OLD MATERIALS, consisting of—
OLD DOUBLE-HEADED RAILS.
OLD CAST-IRON.
OLD IRON TURNINGS, AND OTHER OLD MATERIALS.
Particulars may be had on application at the Storekeeper's Office, London Bridge Terminus. Tenders to be sent in, addressed to the secretary, endorsed "Tender for Old Materials," not later than Wednesday, the 9th September next.
S. SMILES, Sec.
London Bridge Terminus, Aug. 19, 1887.

RIVER TAMAR COPPER MINING COMPANY (LIMITED).
Capital £10,000, in 10,000 shares of £1 each.—Deposit 5s. per share.
Calls not to exceed 2s., at intervals of not less than six months.
OFFICES.—104, KING'S ARMS YARD, MOORGATE STREET.

The River Tamar Copper Mining Company has purchased the sett hitherto known as the South Devon Great Consols Mine, under which appellation it has been prosecuted for upwards of four years last past, with the greatest vigour and judgment. The mine is situated in a stratum of granite and kila, the former being exactly similar to the granite which yielded such great results at Gunns Lake; and the latter being in every respect like that which has yielded such unprecedented returns at the Great Devon. The presence and junction of these two formations are highly favourable to good deposits of copper, and the mine is traversed by cross-courses, which appear to be necessary to the development of profitable copper mines. The character of the lode at the shaft is wider than the general run of granite lodes, which is also a promising feature, and it runs nearly vertical, which is also a further advantage. Gossan is found in the lode as low as the 58, a good indication of a deep and profitable mine; and, lastly, the kind of copper ore which is found in this lode is of the highest possible quality, so that the smallest quantities would be remunerative. In these peculiarities, every known circumstance which tends to great success exists, and at the present time a discovery of a remunerative deposit may be made at any moment.

Applications for shares, according to the enclosed form, accompanied by the receipt of the bankers of the company for a deposit of 5s. per share on the number of shares applied for, may be made at the offices of the company, and all applications by former adventurers in the South Devon Great Consols Mining Company will have precedence.

FORM OF APPLICATION FOR SHARES.

To the Directors of the River Tamar Copper Mining Company (Limited).
Offices, 104, King's Arms-yard, Moorgate-street.

GENTLEMEN,—I request you to allot me _____ shares, of £1 each, in this company; and I hereby agree to accept the same, or any less number which you may allot me; and to execute the Articles of Association of the company when required; and on failure so to do, I consent to forfeit the deposit of 5s. per share now made with the bankers of the company.
Dated this _____ day of _____ 1887. Name in full _____
(State if an adventurer in the South Devon Great Consols Mining Company, and numbers of the scrip certificate held.)

THE RED SEA TELEGRAPH COMPANY (LIMITED).
FIRST SECTION—ALEXANDRIA TO ADEN.
Capital £300,000, in 60,000 shares of £5 per share; £1 to be paid on application. £20,000 per annum to be guaranteed by the Hon. the East India Company and Her Majesty's Government, from date of receipt of the first message.

OFFICES.—No. 8, MOORGATE STREET.

DIRECTORS.
JOHN C. MARSHMAN, Esq., late of Calcutta—CHAIRMAN.
SIR R. MACDONALD STEPHENSON—DEPUTY-CHAIRMAN.
JAMES ALLAN, Esq., Managing Director of the Peninsular and Oriental Steam Navigation Company.
J. A. ARBUTHNOT, Esq. (Messrs. Arbuthnot, Latham, and Co.)
SIR S. GEORGE BONHAM, Bart., K.C.B.
JOHN BOWMAN, Esq. (Messrs. Forbes, Forbes, and Co.)
R. W. CRAWFORD, Esq., M.P., Chairman of the East Indian Railway Company (Messrs. Crawford, Colvin, and Co., London).
FREDERICK G. DALGETY, Esq. (Messrs. Dalgety and Co., London and Australia).
THOMAS DENT, Esq. (Messrs. Palmer, Mackillop, Dent, and Co., London).
WILLIAM DENT, Esq., late Director of the Hon. the East India Company.
GEORGE DEWHURST, Esq., Manchester.
W. GLADSTONE, Esq. (Messrs. Thomson, Bonnar, and Co., London).
A. STEUART GLADSTONE, Esq. (Messrs. Ogilvy, Gillanders, and Co., Liverpool).
SAMUEL GREGGON, Esq., M.P. (Messrs. Greggson and Co., London).
Capt. HALL, R.N., C.B., F.R.S., Director of the Peninsular and Oriental Steam Navigation Company.
CHRISTOPHER RAWSON, Esq. (Messrs. Rawson, Sons, and Co., London).
ERIC CARBINGTON SMITH, Esq. (Messrs. Smith, Payne, and Smith, Lombard-street, London).
ALEXANDER WILSON, Esq., F.R.S., late of Madras Civil Service.
(With power to add to their number.)

BANKERS. Messrs. Glyn, Mills, and Co.; and Messrs. Smith, Payne, and Smith. Solicitors—Messrs. C. H. and W. Freshfield and Newman.
BOOKERS. Messrs. Scott, Corbourn, and Scott.
SECRETARY. Charles Lennox Peel, Esq.

The primary and immediate object of this company is to lay down a telegraphic cable in the Red Sea, between Suez and Aden, so as to effect telegraphic communication that far with India at the earliest possible period.

This object may be completed in a few months, simultaneously with the Mediterranean Telegraph to Alexandria.

By this means communication with all India will be brought within one week, and by the extension to Kurrachee, which will immediately follow, hourly communication will be established.

The political value of this undertaking at the present juncture is too painfully established by recent occurrences in India to require comment, while its social and commercial importance is scarcely less urgent.

The Honourable the East India Company participate so fully in these views, that they have consented to guarantee a minimum annual revenue of £30,000 on the first section of Aden, from the date of the first message received, accompanied by assurances of every necessary assistance and support. This arrangement only awaits the confirmation of Her Majesty's Government, without which the company will not proceed.

As a commercial investment, the returns, which have been carefully prepared, and which may be inspected at the office, show a profit far exceeding any ordinary returns from similar enterprises.

This statement will be appreciated by those connected with the trade of India, to whom it will be evident that all orders for produce, insurance, shipment, arrivals, departures, accidents, change of destination of vessels, &c., would be the subject of telegraphic communication.

It is proposed, so soon as the capital is subscribed, to purchase the Atlantic cable, or provide a new cable, whichever may be decided to be best for the object in view.

The cable will be laid in sections of from 300 to 600 miles, and arrangements have been made with responsible contractors to undertake the risk of laying it.

The company have secured the necessary concessions from the Turkish and Egyptian Governments.

The urgency of the undertaking is universally admitted. The remunerative results are placed beyond all doubt. Perfect immunity from all risk is secured by the Limited Liability Act, and by guarantee of the Government, the East India Company, and the contractors. As a great and important national question, it is only necessary to urge upon all who feel any interest in securing immediate telegraphic communication with India to give their earnest and cordial support to an enterprise which is brought before the public for this sole object.

Application for shares may be sent to the brokers, Messrs. Scott, Corbourn, and Scott, 16, Throgmorton-street, or to the company's offices, No. 8, Moorgate-street; but no application will be considered unless a deposit of £1 on each share applied for is previously made to the bankers of the company. The deposit will be returned if the application is not accepted to.

NICHOLLS, WILLIAMS, AND CO., BEDFORD IRONWORKS, AND ENGINE MANUFACTORY, TAVISTOCK.
STOCK OF SECOND-HAND MATERIALS NOW ON HAND, all in excellent condition, and many nearly new:—

A 30 in. PUMPING ENGINE, 10 ft. stroke, with one or two 10 tons boilers of our own manufacture; has only been in use a few months, in a perfect condition, with a fire-proof house.
A 24 in. WHIM HORIZONTAL ENGINE, with one 10 tons boiler, of our own manufacture only a few months since. There is a drawing machine attached to this engine.

The above may be viewed at the Ivybridge Mine, on application to Capt. Pryor on the mine. The mine is only a short distance from the South Devon Railway, and 12 miles from the Port of Plymouth.

A HIGH-PRESSURE TABLE STEAM-ENGINE, of about 10-horse power, mounted on cast-iron base plates and columns, cylinder 11½ in. diameter, 26 in. stroke, fitted with metallic piston, wood casing, brass hoops, fly-wheel 11 ft. diameter, with a 5 tons boiler, and outfit, complete. There is also a drawing machine attached to this engine.

A PORTABLE STEAM-ENGINE (NEW), on four cast-iron wheels, 9 in. cylinder, and about 10-horse power, with drawing machine cage, complete, suitable for pumping, and crushing, if required. This engine is well calculated for trials of new mines; this engine may also be had on hire.

Some 100 fms. of 2 in. and 2½ in. RODS, with side links and pins, and hammered iron joints.

About 5 to 6 tons PULLEYS for ditto.

Several tons of tapered hammered IRON ROD PLATES, as good as new, with rolled side plates.

CALFSTAN AND WHIM PULLEYS.

TWO RAILROAD WAGONS. One WEIGHING MACHINE.

Four STAMP AXLES, of various sizes.

CAST-IRON CYLINDRICAL AXLES, with gudgeons, turned, suitable for a water-wheel, 40 ft. by 4 ft., and sockets.

SHAFT GIG.

Several sets of splendid BLOCKS, of different sizes.

TAPS AND PLATES.

17½ in. PUMPS.

67 in. PUMPS.

55 in. PUMPS.

109 in. 9 ft. AIR-PIPES.

WORKING-BARRELS, 6 in., 7 in., 8 in., 9 in., 11 in., 12 in., 13 in., and 14 in.

DOORPIECES AND DOORS, 6 in., 8 in., 9 in., 10 in., 11 in., 12 in., and 13 in.

WINDBORES, 5 in., 6 in., 7 in., 8 in., 9 in., 10 in., 11 in., 12 in., and 13 in.

One 10 in. H-PIECE and DOOR.

One 14 in. FLUE BOTTOM, complete, nearly new.

One 12 in. 9 ft. PLUNGER-POLE, with stuffing-box and glands.

For 8 in. 9 ft. PLUNGER-POLES, with stuffing-box and glands. [Icon.]
A large quantity of PRONGS and BOXES, and other articles too numerous to mention. Prices of any of the materials may be obtained on application, either by letter or personal.
NICHOLLS, WILLIAMS, AND CO. beg to call the attention of mining gentlemen to their excellent stock of second-hand mining materials, which they can offer at reasonable prices.—August, 1887.

Summerville Estates Court, Ireland.

COUNTY OF WATERFORD.
SALE ON FRIDAY, the 18th day of November, 1887.

THE COMMISSIONERS WILL, on Friday, the 13th day of November next, at the hour of Twelve o'clock at noon, at their Court, Henrietta-street, Dublin, SELL BY AUCTION, ONE UNDIVIDED MOITY OF THE COPPER MINES, AND OTHER MINERAL SUBSTANCES to be found in, upon, or under the lands of Killestin and Monahilly, in the barony of Decies-without-Drum, and county of Waterford, held under a fee-farm grant, dated 5th March, 1738. The lands of Killestin, on which the above royalties are, contain about 305 acres, English statute measure, and the lands of Monahilly 150 acres. Dated this 17th day of July, 1887. JOHN LOCKE, Auctioneer.

The above royalties are within about 1¼ mile of the Bonmahon Copper Mines, in the direction of which the main lode appears to run, and a favourable opinion has been expressed as to their productiveness and value by William Thomas, Esq., mining engineer, by whom the mines have been examined. They lie on the sea coast, within eight miles of Dangarron, and one mile of Stradbally, in the county of Waterford.—For details, with a copy of Mr. Thomas's report, and other particulars, apply at the Court of the Commissioners, 14, Henrietta-street, Dublin; or to Messrs. GANN and Co., solicitors, having carriage of proceedings, 52, Lower Castle-street, Dublin.

IN CHANCERY.
In the Matter of the JOINT-STOCK COMPANIES ACT, 1844 and 1845, and the NANTLLE VALE SLATE COMPANY.

TO BE SOLD, BY AUCTION, in One Lot, with the approbation of the Master of the Rolls, the Judge to whose Court this matter is attached, the TYMME QUARRIES, situate near Carnarvon, together with the MACHINERY AND PLANT.

Full particulars may be obtained of Messrs. HARRISON, 5, Walbrook, London, solicitors for the official managers.

COUNTY CORK.—SKULL OCHRE MINES.—The ECCLESIASTICAL COMMISSIONERS FOR IRELAND give notice that they are prepared to receive TENDERS, by royalty or other rents, for the MINERALS OF SKULL, County Cork, on which a LARGE DEPOSIT OF RED AND YELLOW OCHRES, by whom the mines have been examined. They lie on the sea coast, within eight miles of Dangarron, and one mile of Stradbally, in the county of Waterford.—For details, with a copy of Mr. Thomas's report, and other particulars, apply at the Court of the Commissioners, 14, Henrietta-street, Dublin; or to Messrs. GANN and Co., solicitors, having carriage of proceedings, 52, Lower Castle-street, Dublin.

VALUABLE MINE MATERIALS FOR SALE.

MR. TIPPET is instructed to SELL, BY PUBLIC AUCTION, on Tuesday, the 8th day of September inst., at Eleven o'clock in the forenoon, at FENTRE GLAZE MINE, St. Minver, near Wadebridge, Cornwall, the WHOLE of the valuable MACHINERY AND MATERIALS thereon, comprising—

A 60 in. cylinder PUMPING ENGINE, 7½ ft. stroke in the shaft, equal beam, with boiler 10 tons.
A 24 in. cylinder HORIZONTAL HIGH-PRESSURE WINDING AND CRUSHING ENGINE, with boiler about 10 tons.

Also, a good CRUSHER, 13 heads of stamps, and machine for drawing work, nearly an excellent 20 ft. WATER-WHEEL, 3 ft. abrest, with 9 stamp heads attached. Several fms. of 9, 10, 11, 12, and 24 in. PUMPS, with windbores, matching, H and doorpieces, poles and shafts; 35 fms. 7 in. plunger-lift.

Three balance-bells, gears, main and flat rods, capstan, cathead, capstan and other ropes, blocks, crab winch, chains, smiths' and miners' tools, tram wagons, a great quantity of lead and brass, 220 fms. tramroad iron, brass bottom and other stores, large beam and scales, powder, safety-fuse, whine, dial, new axle 12 ft., leather, bricks, and counting-house furniture, &c.

Application to view may be made to Capt. BENNETT, on the mine; or Capt. DUNSTON, Liskeard, Cornwall; and further particulars may be obtained of the auctioneer, 21, Lemon-street, Truro; Mr. JOHN KEMP, solicitor, Bath; or Messrs. SMITH and ROBERTS, solicitors, Truro, Cornwall.

SALE OF IMPORTANT COLLIERIES, COLLIERY PROPERTY, AND COKE WORKS, AND A VALUABLE SITE FOR IRON FURNACES, WITH NEARLY ONE THOUSAND ACRES OF STEAM COAL AND MINERALS, CLOSE TO TWO RAILWAYS, AND WITHIN TWENTY-ONE MILES OF TWO LARGE SHIPPING PORTS.

MR. T. WATKINS, of CARDIFF, respectfully informs IRON-MASTERS, COLLIERY PROPRIETORS, COAL MERCHANTS, AND MINING CAPITALISTS, that he is instructed by the Proprietors to OFFER FOR SALE, BY PUBLIC AUCTION, at the Commercial Rooms, in the City of Bristol, on Thursday, the 10th day of September, 1887, between the hours of Three and Four in the afternoon, the following very VALUABLE LEASEHOLD COLLIERIES AND COAL PROPERTY (in the following or such other lots as may be agreed upon at the time of sale), situate within short distances of the well-known Rhymney Works, in the Rhymney Valley, and of the Ebbw Vale Iron-Works, in the Ebbw Valley, having access by railways to the ports of Cardiff and Newport, and to the heart of the mining and manufacturing districts of the kingdom.

Lot 1.—ALL that VALUABLE GOING COLLIERY, in regular work, opened on the Brithdir-Vale at a pit of 25 yards deep, worked by a steam-engine of 30-horse power, and is sufficiently stocked with all necessary plant, &c., for an output of 150 tons per day. There are 20 coke ovens of 7 tons each, recently erected upon the most improved principles, and in regular work. The other erections comprise a capital dwelling-house for the manager, blacksmiths' carpenters', and locomotive engine shops, stable, machine and tip, &c., with engine-house, extensive sidings, and railways, erected and made in the most substantial manner, the whole comprising every requisite for carrying on an extensive trade. The area extends over 235 acres or thereabouts. The royalties are, on part of the coal, 6d., and on the remainder 7d. per ton of 2520 lbs., and 1d. per ton wayleaves; and a dead rent averaging about 25s. per acre, which is allowed in the royalties on the coal worked. The coal is excellent for house, cooking, and gas purposes, and the small makes a very superior coke for locomotives and blast furnaces. The vein is from 36 to 40 inches thick, underlying a strong rock roof, making little or no water, and strong close bottom.

The pit is situated between the old and new Rhymney rails, leading to the New Rhymney Railway, and the whole of this vein of coal is completely drained. The opening, with a little extension, may be capable in a very short time of supplying 150 to 200 tons per day. The royalty is 7d. (on a small portion 6d.), and 1d. wayleaves. The sleeping rent is about 25s. per acre, and the property is held for an unexpired term of 40 years. With this lot will be sold the LEASE of a small FARM, called Tyl Pili, containing about 45 acres, held at a rental of £12 8s. per annum, for 40 years unexpired; also the lease of an interest in HALF the GROUND RENTS of HOUSES on the same farm, for the same term, the lessors joining in extending the lease for terms of 99 years. Numerous houses are built on this property, and others are in course of erection.

Lot 2.—TO BE LET, on lease for 99 years, ALL the COAL, IRONSTONE, and FIRECLAY, lying under 300 acres of land, or thereabouts, situate in the Rhymney Valley, and within three miles of the extensive Rhymney Iron-Works, Glamorgan-shire. This property contains all the veins and seams of house, cooking, and steam coal, ironstone, and fireclay, found in this district of the South Wales mineral basin, and is well adapted for the purpose of being now worked under Lot 2 adjoining, and may be won by a pit of about 75 yards sunk on the side of the New Rhymney Railway, leading to Cardiff. This lot commands a tract of nearly 700 acres of the lower minerals, which may be had upon moderate royalties, and offers a site for blast furnaces and iron-works seldom to be met with, having a never-failing supply of water, and the railways to the ports of Cardiff and Newport running through and close to the property, and communicating with Staffordshire and Liverpool. The steam coal in this valley is considered quite equal, if not superior, to any found in the South Wales basin.

Lot 3.—ALL that lately opened and valuable FREE LEVEL GOING COLLIERY, situate near Ebbw Vale, on the side of the Western Valley Railway, and 16 miles from Newport, together with ample STOCK AND PLANT for an output of 100 tons per day, self-acting incline-plane, double tip, tip-house, extensive railway siding, manager's house, and two other dwellings, quite new, smithy, store-room, weighing machine, retaining walls, &c. The area under demise is about 500 acres of the Cwentilly coal, lying between rock top and strong bottom. This colliery is now extensively worked for house, gas, and smith's use, for shipment and inland sale; also the lease of an interest in HALF the GROUND RENTS of HOUSES on the same farm, for the same term, the lessors joining in extending the lease for terms of 99 years. Numerous houses are built on this property, and others are in course of erection.

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PREVENT SMOKE AND INCREASE STEAM.—PATENT REGULATING AIR-DOOR, FOR MARINE AND STATIONARY STEAM-BOILERS, AND FOR LOCOMOTIVE AND OTHER FURNACES.

CERTIFICATE FROM SIR ARTHUR ROYD.
London, July 28, 1857.—The action of your Regulating Air-Door at the Royal Mint Gold and Silver Refinery is very satisfactory as regards the smoke. They all get up steam in the boilers quicker and maintain it better than before; and they also get the means of raising or lowering the heat in the refinery furnaces as the work may require. Your invention, in fact, deserves every encouragement and recommendation.
J. Lee Stevens, Esq., 1, Fish-street-hill. Signed, A. ROYD.

For further particulars respecting the Patent Regulating Air-Door, and the Patent Safety Marine Boiler; and with reference, also, to the Patent Land Furnaces, Domestic Stoves, and other inventions comprised in his System of Smoke Prevention, apply to Mr. JOHN LEE STEVENS, 1, Fish-street-hill, City, London (E.C.), where a great variety of models and drawings may be seen, and reports and testimonials obtained.

OVERLAND ROUTE.—STEAM TO INDIA AND CHINA, &c., VIA EGYPT.—THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS FOR THE MEDITERRANEAN, EGYPT, ADEN, BOMBAY, CEYLON, MADRAS, CALCUTTA, THE STRAITS, AND CHINA, by their steamers leaving Southampton on the 4th and 20th of every month.

For further particulars, apply at the company's office, No. 123, Leadenhall-street, London; and Oriental-place, Southampton.

STEAM PUMPS, FOR LAND AND MARINE PURPOSES, SINGLE OR DOUBLE ACTING; sizes from 2 1/2 to 12 in. diameter, and from 4 to 14 in. stroke; by JOHN CAMERON. Used for feeding boilers, raising water for reservoirs, tanks, irrigation, &c.; turning power, or as a steam fire engine.

Works, Egerton-street, Hulse, Manchester.

HORIZONTAL HIGH-PRESSURE STEAM-ENGINES ON SALE.—R. and J. COUPE, CLAYTON FOUNDRY, WIGAN, have on hand, completed, and in course of completion—

- ONE extra strong 40-horse power ENGINE, bright, 24 in. bore of cylinder, and 4 ft. stroke, equilibrium slide valve.
 - TWO 30-horse power ENGINES, 20 in. bore of cylinder, and 3 ft. stroke, one black, and one bright, equilibrium slide valve.
 - TWO 25-horse power ENGINES, 17 in. bore of cylinder, and 3 ft. stroke, common valves, one bright, one black.
 - TWO 25-horse power ENGINES, two black and two bright, 16 in. bore of cylinder, and 3 ft. stroke.
 - TWO 15-horse power ENGINES, three black and three polished, 12 in. bore of cylinder, and 3 ft. stroke.
 - TWO 6-horse power ENGINES, 8 in. bore of cylinder, and 18 in. stroke.
- All strong, independent-framed engines, suitable either for manufacturing or for winding purposes.
- Also, several of their IMPROVED DONKEY ENGINES, for forcing water into boilers, cisterns, &c.
- N.B. Inquirers are particularly requested to state for what purposes the engines are required.—July 24, 1857.

CONDIE'S PATENT STEAM HAMMERS.—FIRST-CLASS STEAM HAMMERS, from 10 cwt. to 7 tons, suitable for jobbing, forging, puddling, general engineering, ship-builders, wagon builders, smiths, &c., made under the subscriber's personal superintendence.

JOHN CONDIE, Glasgow Bar Ironworks, Glasgow.

TO COLLIERY OWNERS.—SAFETY with ECONOMY in using MOZARD'S PATENT IMPROVED SAFETY MINING LAMPS, which give a brilliant light and prevent explosion, as the lamp cannot be opened without extinguishing the light; and for twelve hours' burning the cost does not exceed 1d.—Manufactured by H. MOZARD, 31, Berwick-street, Soho, London.

Agents wanted for various districts.

TO IRONMASTERS.—MR. W. OAKES, FURNACE MANAGER, STOCKTON-ON-TEES, DURHAM, has taken out a PATENT for an IMPROVED CONSTRUCTION OF BLAST FURNACES, being the formation of a GAS TOP, for the purpose of conveying the gas from the furnace to the boilers and heating stoves, by which a very large saving is effected in the consumption of fuel, and the labour of firemen dispensed with.

These PATENT GAS TOPS are CHEAPER and MORE ECONOMICAL in their use than the old fashioned gas tops. When Durham coke or raw coal is used in smelting, great advantage will be derived. The apparatus has been in work on two furnaces for the last six months, and found to answer every expectation, and the iron made is of as good quality as from open top furnaces. There is no danger from explosion. Mr. W. OAKES OFFERS the USE of his PATENT to IRONMASTERS upon advantageous terms.—Applications for terms, plans, and sections, to be made to Mr. W. OAKES, St. Ann's, Stockton-on-Tees, Durham.

TO IRON AND COAL MASTERS.—SUBSTITUTE FOR HORSES, by NEILSON'S PATENT MINERAL LOCOMOTIVE ENGINES, which now do work formerly done by horses, and also by FIXED ENGINES on inclines, giving great satisfaction to the proprietors, and effecting an immense saving over the old horse haulage system.

The engines are simple, compact, and durable, carrying their own water and coal, and running on four wheels, can go anywhere that an ordinary wagon can be put. The larger sizes of engines are made for the ordinary gauge, but the smaller engines are made for light rails, and of any gauge down to 32 in.

The following are some of the coal and iron works in Scotland, England, and Wales, where these engines are at work:—Glenbrook, Ardeer, Eglington, Dalzell, Dalrymple, Forth, Clyde, Dowlas, Pontypool, Llanfyllid, Grasmere, Ebbw Vale, Colne, Monmouth, Omsa, Garsheirrie, &c.

NEILSON AND CO., Locomotive Engine Makers, Glasgow.

TO IRONMASTERS.—GAUNTLET'S PATENT PYROMETER, OR HEAT GAUGE FOR HIGH TEMPERATURES.

Ever since the important invention of heated blast in the smelting of metallic ores was brought into general use, the want of an accurate and durable thermometer for indicating the heat of the blast has been generally experienced. That want is now supplied by this instrument.

Its ADVANTAGE consists in its capability of INDICATING HIGH TEMPERATURES beyond the reach of the ordinary mercurial thermometer. Its extreme sensitiveness, and the precision with which it registers high temperatures, renders it invaluable as an appendage to the heating stoves of blast furnaces. The fireman, guided by its indications, is enabled to MAINTAIN A UNIFORM TEMPERATURE in the stove (an important matter in blast furnace operations), whereby a considerable saving of fuel may be effected, both in that used to heat the stove, as well as that which is consumed in the furnace to smelt the minerals. These gauges are supplied only by W. J. LEWIS, Middlebrough-on-Tees.

THOS. GEMMELL AND CO., WIRE ROPE MANUFACTURERS, WORKS, FERRILL ROAD, SPRINGBANK, GLASGOW.

Warehouses—Finniston Quay, Glasgow; 10, King-street, Liverpool; 45, Marlborough-street, Aberdeen; 46, Osborn-street, Hull.

AGENTS—

HENRY J. MORTON and Co., 2, Raininghall-buildings, Leeds.

GEORGE OUTRIM, Liverpool-road, Stuka-upon-Trent.

ISAAC NAYLER, Didsdale, near Dudley.

J. WADDINGTON, 109, Millgate, Wigan.

THOMAS KNIB, 33, Quay-side, Newcastle-upon-Tyne.

WHOLESALE HOUSES, PUBLIC COMPANIES, AND GENERAL ADVERTISERS, can have their ADVERTISING BUSINESS faithfully CONDUCTED.—Experienced and efficient at moderate charges.—Address, Mr. HUMPHREY, care of Mr. G. W. Jordan, 169, Strand, W.C.

ASSAY OFFICE AND LABORATORIES, DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON.

Conducted by JOHN MITCHELL, F.R.S., Author of "Manual of Practical Assaying," Metallurgical Papers, &c.

Assays and Analyses of every description performed as usual. Special Instruction in Assaying and Analysis. Consultations in every branch of Metallurgical and Metallurgical Chemistry. Analyses rendered to intending Patents, &c.

For amount of fees, apply to the office, as above.

VULCANIZED INDIA RUBBER MACHINE BANDING, is not affected by wet, heat, or cold; does not stretch nor slip on the pulleys. HOUSES FOR BREWERIES, &c., will not impart taste, smell, or colour; also, for condensing, or steam purposes. VALVES, WASHERS, PACKING, &c., IN STOCK.—Prices and testimonials on application to DUNN, BACON, and CO., No. 44, St. Paul's Church-yard, London, E.C.

GUTTA PERCHA BANDS, TUBING, &c.—Our BANDS, carefully MANUFACTURED from the VERY BEST GUTTA PERCHA only, are considerably CHEAPER, and, when fairly worked, are far more DURABLE than LEATHER. Can be had in lengths of 100 or 120 ft. without a joint, are easily joined or repaired, and are, when worn out, re-purchased by us at about one-third of their original cost. In the event of a break down, a band of any size can be supplied within a few hours of receipt of order. The present prices are as under:—

- Bands 1/4 in. thick and upwards to 3/4 in. ... 2s. 6d. per lb.
 - Bands above 3/4 in. thick ... 3s. 2d. per lb.
- Under to a liberal discount for cash, varying according to quantity. TUBING and Ropes equally low. All our patented manufactures are to be obtained wholesale from our own works; retail from any of our dealers.
- THE WEST HAM GUTTA PERCHA COMPANY, West-street, Smithfield, London, E.C.

DO YOU LOCK UP YOUR CASH AND BOOKS? If not, lose no time in getting one of GRIFFITHS' SECOND-HAND FIRE and THIEF-PROOF SAFES, for bankers, shippers, merchants, or public companies, by the most eminent makers, at half the cost of new. WROUGHT-IRON DOORS for strong rooms and party walls. Price of safe, 24 in. height, 18 in. width, and 16 in. depth, £3 10s. All safes from this establishment warranted to be fire-resisting, sound, perfect, and quite equal to new.

C. H. GRIFFITHS, 191, Whitechapel-road, near Mile End-gate, E. N.B. Fire-proof Safes, Iron Doors, or Office Furniture bought.

NEW PATENT ACT, 1852.—MR. CAMPIN, having advocated Patent Law Reform before the Government and Legislature, and in the pages of the Mining Journal, &c., is now READY TO ADVISE AND ASSIST INVENTORS IN OBTAINING PATENTS, &c., under the NEW ACT.

The Circular of Information, gratis, on application to the Patent Office and Patent Registry, 156, Strand.

UNITED STATES OF AMERICA.—DUPE, PERKINS, and SAYLER, BOSTON, MASSACHUSETTS, BROKERS for the PURCHASE and SALE OF STATE, CITY, and RAILROAD SECURITIES, MANUFACTURING and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.

[Dunne, Parsons, and Sayler refer to the Editor of the Mining Journal.]

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM. BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS, IN STOCK—FOR SALE OR HIRE.

LOCOMOTIVES.—GEO. RICHARDSON and CO. have some SECOND-HAND ENGINES FOR SALE, in first-rate condition, suitable for passenger or goods traffic, contractors, or mineral purposes, and fit for immediate service.—10, Craig's-court, Charing-cross, London.

THE RAILWAY CARRIAGE COMPANY, OLDBURY, NEAR BIRMINGHAM. MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.

NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK, FOR SALE OR HIRE. LONDON OFFICES.—31, GREAT GEORGE STREET, WESTMINSTER.

THE PERMANENT WAY COMPANY GRANT LICENSES for the USE of the following valuable PATENTED INVENTIONS, adopted on numerous railways at home and abroad, to the extent of upwards 9000 miles:—

- CART-IRON SLEEPERS.
 - De Buge's Patent. Samuel's Patent.
 - P. W. Barlow's. Sir John Macneil's.
 - W. H. Barlow and W. H. Woodhouse's. Mills, &c.
 - W. H. Barlow's Patent. Macdonnell's, &c.
 - IMPROVED JOINTS AND JOINT FASTENINGS, &c.
 - Adams and Richardson's Fish-Joint. Bruff's Improved Joint.
 - Pole's Tapped Fish-Joint. Bridge water's Improved Spikes.
 - Wilke's Grooved Fish-Joint. May and Prince's Improved Spikes.
 - Woodhouse's Improved Joint. Keeling's Joint Fastenings.
 - Barnham's Improved Joint. Ballup's Joint Fastenings.
 - Mansell's Improved Joint. Prince's Chair Moulding Process.
 - TIMBER PRESERVING.
 - Dr. Bouchard's Process. Barlow's Improved Process.
- Every information as to description, cost, &c., of these various plans may be obtained on application to WILLIAM HOWDEN, Secy, 56, Great George-street, Westminster.

BURGIN AND WELLS, STEEL CONVERTERS AND REFINERS, MANUFACTURERS OF RAILWAY CARRIAGE AND WAGON SPRINGS, IMPROVED CAST-STEEL FILES, &c. HOLLIS CROFT STEEL WORKS, SHEFFIELD.

JOHN H. PECK, MANUFACTURER OF RAILWAY OIL COVERS, CART AND WAGON COVERS, OIL CLOTH, STACK COVERS, BOAT SHEETS, TARPULIN, BRATTICE CLOTH, COKE AND CORN SACKS, POTATO BAGS, TWINE, &c., WIGAN. LONDON AGENT.—T. E. WELLES, 15, Duke-street, Adelphi.

ROBERT MACLAREN AND CO., EGLINTON FOUNDRY, GLASGOW, MANUFACTURERS OF ALL SIZES OF CAST-IRON MAIN PIPES, FOR GAS AND WATER, by an improved patent. GENERAL IRONFOUNDERS AND GAS ENGINEERS. MAKERS OF WROUGHT-IRON TUBES AND FITTINGS. AGENTS IN LONDON.—A. MACLAREN and Co., No. 174, Upper Thames-street.

BRYAN, McCracken, and CO., MERCHANTS, AND GENERAL COMMISSION AGENTS, 1, SANDHILL, NEWCASTLE-ON-TYNE. Contracts made for all kinds of Machinery, Cast and Wrought-Iron Railway Bars, Anchors, Chains, Coals, Coke, Fire-Bricks, &c. All orders promptly shipped and forwarded. Prices and lists of freights or carriage sent on application.

W. M. RYDER, GENERAL MINERAL AND METAL AGENT AND MERCHANT, No. 4, DEAN STREET, NEWCASTLE-ON-TYNE, is prepared to SUPPLY any description of IRON or IRON GOODS, MACHINERY of every description, CHAINS, ANCHORS, and FORGED or FOUNDRY WORK, COALS, COKE, FIRE-BRICKS, &c. All communications addressed to him as above shall have prompt and careful attention.

WILLIAM FOX AND SON, METAL AGENTS, No. 39, OLD HALL STREET, LIVERPOOL, SOLE AGENTS IN LIVERPOOL for the SALE of the following makes of IRON:—

- DAVIES and SON'S. PLANT and FISHER'S.
 - MILTON and ELGAR. BRUGHTON HALL.
 - JOHN MARSHALL'S. DANIEL ROSE'S.
- EVERY DESCRIPTION OF IRON ALWAYS ON SALE. Also, TIN-PLATES, WIRE, RAILWAY SPIKES, &c.

MUNTZ'S PATENT SOLID ROLLED BRASS TUBES, FOR LOCOMOTIVE AND MARINE BOILERS. G. F. MUNTZ begs to state that, in consequence of the satisfactory results obtained during the five years these tubes have been in use, the following railway companies have entered into contracts to USE the PATENT TUBES exclusively on all their lines, viz:—

- The London and North-Western Comp. The Lancashire and Yorkshire Company.
 - The Midland Company. The Newcastle and Carlisle Company.
 - Lancaster and Carlisle Railway Company.
- These tubes are also very extensively used on all the other principal railways at home and abroad, and for marine purposes by Her Majesty's Navy and several of the leading steam-merchant companies, and also by all the eminent engineers of the Kingdom. G. F. MUNTZ takes this opportunity of stating that the tubes now manufactured are very superior, both in finish and quality, to those formerly produced in the early stage of the patent.—French Works, Birmingham, April, 1857.
- GEO. RICHARDSON and Co., Agents, 10, Craig's-court, Charing-cross, London.

CALVERT'S PATENT PROCESS FOR MAKING COKE AND IRON FREE FROM SULPHUR. For LICENSES to USE the above process, apply to ROBERT LONDON, Jun., 63, King-street, Manchester.

FOR APPLICATION OF the PATENT to GAS WORKS, apply to Mr. GEORGE THACKER, Exchange Chambers, Manchester.

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This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate. Address.—RICKFORD, SMITH, DAVEY, and FRYOR, Tuckingmill, Cornwall.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON and CO., PEN-HALLICK, near REDRUTH, CORNWALL, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe. Messrs. BRUNTON & CO. are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE direct from their own MANUFACTORY, upon warrant that it will prove equal to, if not better, than any to be procured elsewhere.

SHAFTING, SHAFTING, SHAFTING. ROLLERS, ROLLERS, ROLLERS. SPINDLES, SPINDLES, SPINDLES. AXLES, SCREWS, MANDRILLS. THE BEST MAKER IS HARRY BENTLEY, EAGLE WORKS, SALFORD, MANCHESTER. N.B. Every description of Turning, Planing, Boring, and Screw-Cutting.

BY HER MAJESTY'S ROYAL LETTERS PATENT. THE DISPATCH OIL SOCKET AND AXLE CLEANER.—To be set in the Hubs or Naves of all kinds of Wheels, New or Old Carriages (with or without patent or close boxes), Coaches, Omnibuses, Cabs, Carriages, Heavy Wagons, Artillery, Dray Carts, &c., of every description. For OILING and thoroughly CLEANING the AXLES without taking off the wheels, and in one minute. For LICENSES or EXCLUSIVE RIGHTS to apply the OIL SOCKET AND AXLE CLEANER throughout the United Kingdom, address to owner, Mr. CHARLES BROWN, Barborough, near Chesterfield. Office and shop for applying the Oil Socket, &c., at the Saw Mills, Barborough, at the Crown Works, Foss Hill, Sheffield; and at all authorized agents throughout the Kingdom.

MESSRS. KNOWLES AND BUXTON, CHESTERFIELD, MANUFACTURERS OF PATENT TUBULAR TUYERES, FOR HOT BLAST FURNACES, SMITHS' FORGES, &c.



PATENT TUBULAR TUYERES.

Messrs. Knowles and Buxton can with confidence bring before the public their IMPROVEMENT in TUYERES, having proved their utility at Mr. Knowles's furnace, Brimington Moor, as well as at other furnaces in the surrounding neighbourhood. They are now perfectly satisfied that one trial will be sufficient to convince all practical furnace managers that they are the CHEAPEST and BEST ever offered to the public. The annexed diagram shows the principle to be both simple and efficient, conveying a current of cold water direct to the nozzle of the tuyere, which is made of thin tubing (without the incumbrance of cast-iron), allowing the cooling property of the water to act direct upon that part most exposed to the fire, and is sufficient to keep the liquid metal from adhering to the tuyere, which is not the case with those generally in use. After taking into consideration the first cost, and the advantage of being able to work them longer without the loss of time in replacing, or injuring the metal, they will be found, after a fair and impartial trial, to be most decidedly a great advantage to furnace proprietors.

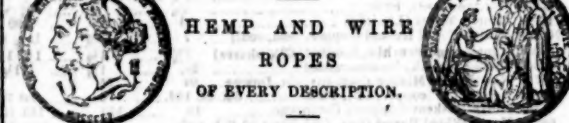
Messrs. Knowles and Buxton are prepared to SUPPLY hot-blast furnace tuyeres, with sockets, at 25s. each; without sockets, at 35s. each; smiths' forge tuyeres, at 15s. each; delivered at Chesterfield Station.

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ADVANTAGES.—A more perfect vacuum is obtained, friction reduced, great saving in oil and tallow, and the packing is gradually and completely worn away without becoming hard, thus obviating the necessity of drawing the old packing.

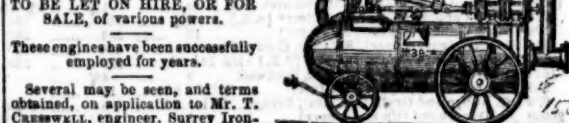
Orders received for the Patent Packing, also for Vulcanized India Rubber, in sheets, valves, &c., at the Office of the Patent Steam Packing Co., 47, Mark-lane, E.C.

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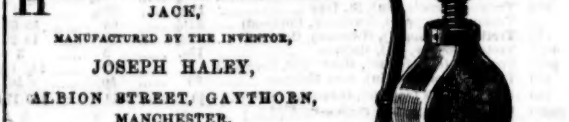


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Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.	Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5120	Alfred Consols (cop.), Phillack (S.E.)	21. 11s. 10d.	21 11	14 1/2	15 1/2	217 13 0	20 8 0	Aug. 3, 1887.	4096	Rosewarne Consols	1 1/2	1 1/2	1 1/2
1824	Ballgownie (tin), St. Just	11 1/2	11 1/2	11 1/2	11 1/2	12 5 0	0 5 0	Jan. 1, 1884.	6000	Round Hill (silver-lead), Salep	1 1/2	1 1/2	1 1/2
4000	Bedford United (copper), Tavistock	21. 6s. 6d.	21 6	6 1/2	6 1/2	8 11 6	0 0 0	Aug. 27, 1887.	6000	Severn (lead, copper)	1 1/2	1 1/2	1 1/2
240	Bosman (tin), St. Just	100	100	100	100	18 0 0	0 0 0	May 28, 1887.	5300	Silver Brook, Ashburton	1 1/2	1 1/2	1 1/2
200	Botalack (tin, copper), St. Just	91 1/2	275	260 370	410 5 0	3 0 0	0 0 0	Aug. 18, 1887.	1024	Silver Valley, Truro	2 1/2	2 1/2	2 1/2
1200	Brightside and Froggatt Grove, Derbyshire	5	4	4 1/2	4 1/2	3 6 0	0 0 0	Apr. 18, 1886.	4000	Sithney Wheel (tin)	1 1/2	1 1/2	1 1/2
100	Bryndall, Llanidloes, Montgomeryshire	20	20	20	20	12 0 0	0 0 0	July 1, 1886.	13000	Stridgate & Redford, Tavistock	1 1/2	1 1/2	1 1/2
400	Budnick Consols (tin), Ferran	7 1/2	3	3	3	0 0 0	0 0 0	July 1, 1886.	1200	South Bog (lead), Salep	1 1/2	1 1/2	1 1/2
9000	Burich (silver-lead), Cardiganshire	31. 12s. 6d.	1	1	1	0 0 0	0 0 0	July 30, 1886.	6000	South Buller & W. Penwith	1 1/2	1 1/2	1 1/2
1000	Caru Brea (copper, tin), Illogan	15	60	40 45	235 10 0	2 0 0	0 0 0	May 22, 1887.	6000	South Carn Brea (cop.), S.E.	2 1/2	2 1/2	2 1/2
3048	Carnarvon (tin), St. Just	4 1/2	5	5 1/2	0 15 0	0 0 0	0 0 0	June 16, 1886.	6000	South Clifford United, Gwennap	1 1/2	1 1/2	1 1/2
300	Cefa Cwm Brynno (lead), Cardiganshire	33	55	55	3 0 0	0 0 0	0 0 0	Oct. 4, 1885.	6144	S. Condurow (tin, cop.), Camb. 11s. 10d.	1 1/2	1 1/2	1 1/2
2000	Collamere (copper)	5	25	23 25	2 10 0	0 0 0	0 0 0	July 30, 1887.	3502	South Crenner (copper)	1 1/2	1 1/2	1 1/2
256	Condurow (copper, tin), Camborne (S.E.)	30	110	100 110	85 0 0	2 0 0	0 0 0	June 10, 1887.	256	South Crenner (copper)	1 1/2	1 1/2	1 1/2
30000	Craven Moor, Limited (lead), Yorkshire	80	140	150	95 0 0	5 0 0	0 0 0	Feb. 28, 1886.	6000	South Gwennap (tin, cop.)	1 1/2	1 1/2	1 1/2
128	Cwmystwili (lead), Cardiganshire	60	140	150	95 0 0	5 0 0	0 0 0	Feb. 28, 1886.	6000	South Hargrave (tin), Calstock	1 1/2	1 1/2	1 1/2
200	Derwent Mines (silver-lead), Durham	380	150	150	122 0 0	10 0 0	0 0 0	June 25, 1887.	6000	South Lady Bertha (copper)	1 1/2	1 1/2	1 1/2
1024	Devon Great Consols (cop.), Tavistock (S.E.)	230	450	450	578 0 0	10 0 0	0 0 0	July 24, 1887.	1024	South Providence (tin), Sithney	2 1/2	2 1/2	2 1/2
672	Dine Dore (tin), Gwilt	32	35	30 22 1/2	12 0 0	1 0 0	0 0 0	Mar. 2, 1887.	1105	So. Wh. Croft (cop.), Illogan	2 1/2	2 1/2	2 1/2
179	Doleath (copper, tin), Camborne	257 1/2	310	300 320	935 0 0	8 0 0	0 0 0	Aug. 10, 1887.	1024	So. Wh. Klen (cop.), St. Agnes	2 1/2	2 1/2	2 1/2
12800	Drake Walle (tin, copper), Calstock	17. 10s.	2 1/2	2 1/2	0 11 6	0 2 6	0 0 0	May 8, 1887.	6000	So. Wh. Klen (cop.), Camborne	2 1/2	2 1/2	2 1/2
300	East Daren (lead), Cardiganshire	32	100	100	30 0 0	3 0 0	0 0 0	Aug. 27, 1887.	5208	St. Austell Consols	1 1/2	1 1/2	1 1/2
2048	East Falmouth (lead)	2 1/2	3 1/2	3 1/2	0 2 6	0 2 6	0 0 0	July 13, 1887.	920	Stray Park	2 1/2	2 1/2	2 1/2
178	East Pool (tin, copper), Pool, Illogan	24 1/2	340	340	290 0 0	2 10 0	0 0 0	Aug. 31, 1887.	1800	Swanpool, Budock	2 1/2	2 1/2	2 1/2
1024	East Wheel Margaret (tin, copper)	6 1/2	10	10 11	0 5 0	0 5 0	0 0 0	Jan. 11, 1884.	2900	Tay Con. (cop.), near Tavistock	2 1/2	2 1/2	2 1/2
5700	Exmouth (silver-lead)	41. 14s.	8	8	3 1 0	0 3 6	0 0 0	Aug. 24, 1887.	6400	Tee Side (lead), Cumberland	2 1/2	2 1/2	2 1/2
1400	Eyan Mining Company (lead), Derbyshire	5	60	55 59	14 13 4	1 0 0	0 0 0	Aug. 6, 1887.	1000	Tolkenbury Consols, Liskeard	1 1/2	1 1/2	1 1/2
4940	Fowey Consols (copper), Tywardreath	4	7	7	41 4 3	0 6 0	0 0 0	Feb. 17, 1887.	6000	Tolvadon, Marazion	1 1/2	1 1/2	1 1/2
4448	General Mining Co. for Ireland (cop., lead)	3	2 1/2	2 1/2	1 0 0	0 3 3	0 0 0	June 5, 1886.	1024	Trebarrah, Penryn	2 1/2	2 1/2	2 1/2
2000	Goginan (silver-lead), Cardiganshire	7 1/2	15	10 12	0 7 6	0 7 6	0 0 0	Sept. 5, 1886.	5000	Trebruggat Crovan (Limited)	1 1/2	1 1/2	1 1/2
1024	Gonansens (copper), St. Cleer	12 1/2	15	10 12	0 7 6	0 7 6	0 0 0	Sept. 5, 1886.	600	Tregadock (lead), St. Erth	1 1/2	1 1/2	1 1/2
248	Graham & St. Aubyn (copper)	100 1/2	95	90 95	4 0 0	3 0 0	0 0 0	July 7, 1887.	5000	Trevelyan (tin, copper)	1 1/2	1 1/2	1 1/2
6000	Great South Toller (tin), Helston (S.E.)	16 1/2	16 1/2	16 1/2	0 5 0	0 5 0	0 0 0	Aug. 20, 1885.	8000	Trevone Consols, Padstow	2 1/2	2 1/2	2 1/2
30000	Great Wheel Vor (tin, cop.), Helston (S.E.)	16 1/2	16 1/2	16 1/2	0 5 0	0 5 0	0 0 0	Aug. 20, 1885.	1024	Trevoile, Crovan, Cornwall	2 1/2	2 1/2	2 1/2
119	Great Work (tin), Gernoe	100	140	140	221 10 0	7 10 0	0 0 0	Feb. 27, 1887.	6400	Trewoon (silver-lead)	1 1/2	1 1/2	1 1/2
1024	Herodotus (lead), near Liskeard	8 1/2	8 1/2	8 1/2	2 12 0	0 7 6	0 0 0	Apr. 18, 1884.	16	Trinity (copper, tin)	1 1/2	1 1/2	1 1/2
6000	Hingston Down Consols (copper), Calstock	3 1/2	3 1/2	3 1/2	2 16 0	0 2 6	0 0 0	Nov. 25, 1886.	6000	Tyn-y-Werdd (lead), Carna	1 1/2	1 1/2	1 1/2
2000	Holyford (copper), near Tipperary	11	8 1/2	8 1/2	4 2 0	0 5 0	0 0 0	Jan. 28, 1887.	10000	Tyn-y-Werdd (lead), Carna	1 1/2	1 1/2	1 1/2
2560	Iale of Man (Limited)	25	42	42	54 17 3	1 0 0	0 0 0	Sept. 3, 1887.	6000	Virtuous Lady and Wh. Bedford	1 1/2	1 1/2	1 1/2
76	Jamaica (Lead), Mold, Flintshire	31. 13s. 6d.	—	—	380 0 0	5 0 0	0 0 0	Mar. 10, 1881.	5085	United Mines, Tavistock	1 1/2	1 1/2	1 1/2
20	Lakey Mining Company, Isle of Man	100	1000	—	1420 0 0	50 0 0	0 0 0	June 30, 1887.	960	Wendron United Mines	2 1/2	2 1/2	2 1/2
160	Levant (copper, tin), St. Just	2 1/2	85	85 90	1062 0 0	4 0 0	0 0 0	May 12, 1887.	1024	West Alfred (cop.), Phillack	2 1/2	2 1/2	2 1/2
4000	Lewis Mines (tin, copper), St. Erth	57. 11s. 11d.	3 1/2	3 1/2	0 10 0	0 10 0	0 0 0	Dec. 20, 1885.	6000	West Carnia & Regent United	2 1/2	2 1/2	2 1/2
4000	Lisburne (lead), Cardiganshire, Wales	18 1/2	120	120	298 10 0	3 0 0	0 0 0	Aug. 6, 1887.	1080	West Carnia & Regent United	2 1/2	2 1/2	2 1/2
6000	Marke Valley (copper), Cardigan	41. 10s. 6d.	3	3 1/2	0 5 6	0 5 6	0 0 0	Sept. 7, 1885.	300	West Nant-y-Mwyn (lead)	2 1/2	2 1/2	2 1/2
5000	Mendip Hills (lead), Somerset	3 1/2	1 1/2	1 1/2	1 7 6	0 5 0	0 0 0	May 29, 1887.	35000	West Park Con. (cop.), St. Blaise	1 1/2	1 1/2	1 1/2
5000	Merrilyn (lead), Flint	3 1/2	3 1/2	3 1/2	1 11 0	0 2 6	0 0 0	June 22, 1885.	6000	West Polberro, St. Agnes	2 1/2	2 1/2	2 1/2
1800	Minera Mines (Limited)	25	85	90	21 0 0	3 0 0	0 0 0	Aug. 13, 1887.	1024	West Rosewarne United	2 1/2	2 1/2	2 1/2
30000	Miners Co. of Ireland (copper, lead, coal)	7	15 1/2	15 1/2	12 15 6	0 10 6	0 0 0	July 2, 1887.	1056	West Stray Park, Camborne	2 1/2	2 1/2	2 1/2
9000	Nantow and Pen-hw, Limited (2 1/2 shares)	1 1/2	1 1/2	1 1/2	0 1 6	0 1 6	0 0 0	Apr. 30, 1885.	1024	West Tregadock (tin, cop.)	2 1/2	2 1/2	2 1/2
6400	North Heath, West Cornwall	2 1/2	1 1/2	1 1/2	0 2 0	0 2 0	0 0 0	May 21, 1887.	128	West Tregadock (tin, cop.)	2 1/2	2 1/2	2 1/2
470	North Cornwall Mining Company, Co. Down	1 1/2	1 1/2	1 1/2	0 2 0	0 2 0	0 0 0	Oct. 17, 1887.	512	West Wheel Franks, Illogan	2 1/2	2 1/2	2 1/2
200	North Pool (copper, tin), Pool	33s. 10d.	70	60 70	48 0 0	2 0 0	0 0 0	Dec. 26, 1884.	10000	West Wheel Franks, Illogan	2 1/2	2 1/2	2 1/2
140	North Reekar (copper), Camborne	10	130	150 180	249 10 0	4 0 0	0 0 0	Sept. 26, 1887.	2560	West Wheel Franks, Illogan	2 1/2	2 1/2	2 1/2
6000	North Wheel Basset (cop., tin), Illo. (S.E.)	10 1/2	17	14 1/2	13 13 0	0 10 0	0 0 0	Aug. 26, 1887.	4000	West Wheel Franks, Illogan	2 1/2	2 1/2	2 1/2
6000	Par Consols (copper), St. Blaise (S.E.)	1 1/2	31	30 1/2	29 14 0	1 10 0	0 0 0	June 30, 1887.	15000	Wheel Bray (copper), Altarnun	2 1/2	2 1/2	2 1/2
5000	Peak United (lead), North Derbyshire	7 1/2	—	—	4 10 0	0 10 0	0 0 0	Apr. 12, 1886.	512	Wheel Clinton (lead)	2 1/2	2 1/2	2 1/2
200	Phenix (copper, tin), Linkinghorne	100	—	270	224 10 0	20 0 0	0 0 0	May 4, 1887.	1024	Wheel Constantine (tin, cop.)	2 1/2	2 1/2	2 1/2
1000	Polberro (tin), St. Agnes (Preferential)	15	—	—	18 11 0	1 0 0	0 0 0	July 1, 1887.	4096	Wheel Crenor (cop.), Tavistock	2 1/2	2 1/2	2 1/2
600	Providence Mines (tin), Uay Lelant	204. 13s. 2d.	80	85 90	66 4 0	4 0 0	0 0 0	Aug. 19, 1887.	6120	Wheel Cupid (copper), Redruth	2 1/2	2 1/2	2 1/2
2500	Rhoswydol and Bacheildon (lead)	11 1/2	12	13 1/2	0 10 0	0 10 0	0 0 0	Aug. 19, 1887.	4096	Wheel Edward, Calstock (S.E.)	2 1/2	2 1/2	2 1/2
512	Rosewarne United (copper, tin), Gwennap	12	32 1/2	30 31	32 10 0	1 10 0	0 0 0	June 8, 1887.	6000	Wheel Eliza (cop.), Whitechapel	2 1/2	2 1/2	2 1/2
12000	Rosewarne Consols (cop.), Whitechapel (S.E.)	6s.	1 1/2	1 1/2	0 10 0	0 10 0	0 0 0	June 8, 1887.	1024	Wheel Ellen (cop.), St. Agnes	2 1/2	2 1/2	2 1/2
256	South Caradon (copper), St. Cleer (S.E.)	3 1/2	340	350	474 0 0	8 0 0	0 0 0	July 18, 1885.	1000	Wheel Emily (cop.), Gwilt	2 1/2	2 1/2	2 1/2
128	South Consols (copper), St. Austell	19	285	285	69 0 0	30 0 0	0 0 0	July 18, 1885.	4000	Wheel Emma (cop.), Gwilt	2 1/2	2 1/2	2 1/2
256	South Toller (copper), Redruth, Cornwall	18	130	130	74 5 0	8 0 0	0 0 0	July 18, 1885.	1000	Wheel Emma (cop.), Gwilt	2 1/2	2 1/2	2 1/2
496	South Wheel Franks, Illogan (S.E.)	18. 13s. 9d.	27 1/2	250	28 5 0	8 0 0	0 0 0	July 18, 1885.	1070	Wheel Emma (cop.), Gwilt	2 1/2	2 1/2	2 1/2
1024	Spearne Consols (tin), St. Just, Cornwall	3 1/2	4 1/2	4 1/2	4 5 0	0 10 0	0 0 0	June 18, 1886.	720	Wheel Emma (cop.), Gwilt	2 1/2	2 1/2	2 1/2
280	Spearne Moor (copper), St. Just	237. 7s. 6d.	15	—	4 5 0	0 10 0	0 0 0	June 18, 1886.	1536	Wheel Gill	2 1/2	2 1/2	2 1/2
979	St. Aubyn and Grylls (cop., tin), Breage, S.E.	14s. 1d.	5	4 1/2	0 17 6	0 7 6	0 0 0	Apr. 11, 1882.	4000	Wheel Glyn	2 1/2	2 1/2	2 1/2
30000	St. Day United (tin and copper)	2	1 1/2	1 1/2	0 1 6	0 1 6	0 0 0	Apr. 22, 1887.	6000	Wheel Grenville	2 1/2	2 1/2	2 1/2
94	St. Ives Consols (tin, cop.)	80	165	180 170	210 0 0	7 0 0	0 0 0	May 19, 1887.	5000	Wheel Guakus (tin, cop.)	2 1/2	2 1/2	2 1/2
9000	Tamar Consols (tin, lead), Berranet (S.E.)	4 1/2	1 1/2	1 1/2	4 11 6	0 2 6	0 0 0	Feb. 7, 1886.	5120	Wheel Harriet, Camborne	2 1/2	2 1/2	2 1/2
2000	Tinroff (copper, tin), Pool, Illogan (S.E.)	9 1/2	4 1/2	4 1/2	8 3 6	0 5 0	0 0 0	Apr. 13, 1887.	1000	Wheel Head, Crovan	2 1/2	2 1/2	2 1/2
2048	Trebarrah (silver-lead), Menheniot	1 1/2	20 1/2	20 1/2	8 11 3	0 5 0	0 0 0	Dec. 29, 1885.	6000	Wheel Head, Crovan	2 1/2	2 1/2	2 1/2
128	Trelon Consols (tin), St. Ives	11 1/2	20 1/2	20 1/2	1 15 0	1 0 0	0 0 0	Feb. 21, 1884.	4000	Wheel Head, Crovan	2 1/2	2 1/2	2 1/2
96	Trevelyan (copper), Gwennap, Cornwall	23 1/2	25	25 1/2	403 12 0	3 0 0	0 0 0	July 6, 1885.	4000	Wheel Head, Crovan	2 1/2	2 1/2	2 1/2
130	Trevelyan (copper), Gwennap, Cornwall	15 1/2	20	20 1/2	403 12 0	3 0 0	0 0 0	July 6, 1885.					